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PERSONAL.

Mr. Harry L. Kimball, of Newton, Mass., has accepted a position with the Boston Harbor Survey.

Mr. Edwin C. Adams, Professor of Civil Engineering at the Imperial University at Tien Tsin, China, is now at Tokyo, Japan, on his way to America.

Mr. O. K. Morgan has resigned his position as Assistant Engineer of the Boston & Maine R. R. to accept the position of Engineer for the Board of Sewer Commissioners, Wakefield, Mass.

Professor H. T. Todd, Director of the Nautical Almanac, has retired, having reached the age limit. He will be succeeded by Prof. S. J. Brown, the Astronomical Director of the Naval Observatory.

Mr. William Gibson, General Superintendent of the Pittsburg Division of the Baltimore & Ohio R. R., has been promoted to be General Superintendent of Transportation for the entire system.

Mr. W. B. Hynes has resigned his position in the Engineering Department of the Cincinnati, Hamilton & Dayton R. R., and is now a Roadmaster on the Cleveland, Cincinnati, Chicago & St. Louis Ry.

Mr. H. Oki, Chief Engineer of Construction of the Japanese Navy, is in America on his way to Japan. He has been in France overseeing the building of the Japanese cruiser "Azuma" at St. Nazaire.

Mr. Henry S. Fleming, Secretary of the Anthracite Coal Operators' Association, has gone to Europe for the purpose of investigating the possibilities of introducing anthracite coal into the various European markets.

Mr. E. C. Macy has been appointed Division Engineer of the Iowa Central Ry. for all lines north of Oskaloosa. Mr. R. H. Wright has been appointed Division Engineer for all points east and south of Oskaloosa. The headquarters for both divisions will be at Marshalltown, Iowa.

Messrs. J. M. Masten, Superintendent of Mails at Brooklyn, N. Y.; J. A. Montgomery, Superintendent of Mails at Chicago, Ill.; and E. W. Alexander, Superintendent of Mails at Philadelphia, Pa., have been appointed by the Post Office Department to investigate the subject of pneumatic-tube postal service. The committee is empowered to employ engineers or other specialists in their work.

OBITUARY.

Mr. Michael O'Brien, Civil Engineer, died Aug. 24, at his home at Conshohocken, Pa.

Mr. John Clark Stulen, Civil Engineer, of the firm of J. C. Stulen & Co., of Athens, Pa., died at Saranac Lake, N. Y., Aug. 26.

Mr. John H. Esson, a well-known Chicago contractor, committed suicide at the Hotel Vendome, New York city, Aug. 27, after attempting to murder Mr. H. M. Stridiron, a representative of the Superior Lumber Co. Mr. Esson had been drinking heavily when the shooting occurred and had showed signs of being mentally unbalanced.

Captain John Wall Wilson, one of the two survivors of the second Grinnell Arctic expedition, died Aug. 27 at Brooklyn, N. Y. Capt. Wilson won fame as the navigator of Dr. Kane's expedition to the relief of Sir John Franklin. He was a graduate of the Naval Academy at Annapolis, and was given a commission for gallantry during the Civil War.

Dr. Hermann A. Loos died of yellow fever on the steamship "Chile," July 17, while on his way to Chaparal, Chile, where he was to act as Chemist of the Copper Corporation of Chile. Dr. Loos was a graduate from the College of the City of New York, and also received the degree of Ph. D. from Columbia University. He was a Fellow of the Society of Chemical Industry of London, Eng., and a member of the American Chemical Society.

Mr. Fairman Rogers, M. Am. Soc. C. E., died at Vienna, Austria, Aug. 22. Mr. Rogers was born in Philadelphia, Pa., in 1833. He graduated from the University of Pennsylvania in 1853, and two years later became Professor of Civil Engineering at that school, which position he held until 1871. He was a member of the Philadelphia City Troop, and served in the Civil War. He was elected by Congress to be one of the 50 original members of the National Academy of Sciences and was also a member of the American Philosophical Society. He was well known as a whip and an authority on coaching.

ENGINEERING SOCIETIES.

COMING GENERAL MEETINGS.

NATIONAL ASSOCIATION OF GERMAN-AMERICAN TECHNOLOGISTS.
Sept. 1 to 5. 16th annual convention at Baltimore, Md. Secy., John Maiberg, Baltimore, Md.

ASSOCIATION OF EDISON ILLUMINATING COMPANIES.
Sept. 4. Annual meeting at Saratoga Springs, N. Y. Secy., Wilson S. Howell, Newark, N. J.

CENTRAL STATES WATER-WORKS ASSOCIATION.
Sept. 4 to 6. Annual meeting at Columbus, O. Secy., John Fisher, P. O. Box 203, Hamilton, O.

IRON AND STEEL INSTITUTE OF GREAT BRITAIN.
Sept. 10. At Paris, France. Secy., Bennet H. Brough, 28 Victoria St., London, S. W., England.

RAILWAY SIGNALING CLUB.
Sept. 11. At Atlantic City, N. J. Secy., C. O. Tilton, West Milwaukee, Wis.

STREET RAILWAY ASSOCIATION OF THE STATE OF NEW YORK.
Sept. 11 and 12. Fall meeting at Buffalo, N. Y. Secy., Henry A. Robinson, 621 Broadway, New York city.

STREET RAILWAY ASSOCIATION OF THE STATE OF NEW YORK.
Sept. 18 and 19. At Buffalo, N. Y. Secy., H. A. Robinson, Solicitor Metropolitan Ry. Co., New York City.

AMERICAN BOILER MANUFACTURERS' ASSOCIATION.
Sept 18 to 20. Annual meeting at Cincinnati, O. Secy., J. D. Farasey, Cleveland, O.

EASTERN MAINTENANCE OF WAY ASSOCIATION.
Sept. 19 to 21. Annual meeting at Saratoga Springs, N. Y. Secy., F. C. Stowell, Ware, Mass.

NATIONAL ASSOCIATION OF MUNICIPAL ELECTRICIANS.
Sept. 25 to 27. Annual meeting at Pittsburg, Pa. Secy., Secy., Geo. H. F. Cottel, City Electrician, Boston, Mass.

PENNSYLVANIA STREET RAILWAY ASSOCIATION.
Oct. 10 and 11. Annual meeting at Reading, Pa. Secy., S. P. Light, Lebanon, Pa.

AMERICAN INTERNATIONAL ASSOCIATION OF RAILROAD SUPERINTENDENTS OF BRIDGES AND BUILDINGS.
Oct. 16. Annual meeting at St. Louis, Mo. Secy., S. F. Patterson, Concord, N. H.

AMERICAN STREET RAILWAY ASSOCIATION.
Oct. 16 to 19. Annual meeting at Kansas City, Mo. Secy., T. C. Pennington, 2020 State St., Chicago, Ill.

AMERICAN GAS LIGHT ASSOCIATION.
Oct. 17 to 19. Annual meeting at Denver, Colo. Secy., Alfred E. Forstall, 58 William St., New York city.

AMERICAN RAILWAY ASSOCIATION.
Oct. 24. Annual meeting at Boston, Mass. Secy., W. F. Allen, 24 Park Place, New York city.

INTERNATIONAL ASSOCIATION FOR TESTING MATERIALS.
Oct. 25 to 27. Annual meeting of American section at New York city. Secy., Richard L. Humphrey, City Hall, Philadelphia, Pa.

RAILWAY SIGNALING CLUB.—The next meeting will be held Sept. 11 at Atlantic City, N. J. Two papers will be presented, as follows: "Automatic Block Signal Failures Due to Lightning," H. D. Miles, Signal Engineer, Michigan Central Ry.; "Back Lights," W. H. Lane, Supervisor of Mechanical Signals, Lehigh Valley R. R.

C. O. Tilton, Secy

NEW PUBLICATIONS.

BUREAU OF LABOR STATISTICS OF ILLINOIS.—Report for 1897-8. David Ross, Secretary, Springfield, Ill. Cloth; 6 x 8 ins.; pp. 271; tables.

The results of inquiries relating to the relative advantages of private and public ownership of water and lighting plants are given in these two reports. The investigations were made in collaboration with the U. S. Department of Labor and similar ones have been conducted in a number of other states. Where the several states have not taken up the work the bureau at Washington, we understand, has carried it on. A national report, embodying the work of the several state bureaus and the supplementary work carried on from Washington, has been promised for early publication by the U. S. Department of Labor. These reports contain many tables of statistics relating to water-works, gas and electric lighting plants, designed to show the individual and comparative results for each class. The names of the places in which the works are located are withheld, in accordance with the conditions under which the information (more particularly from private companies) was obtained. The Illinois report presents conclusions in favor of private ownership in some particulars and public in others, but with the balance inclined to the latter. For Connecticut, the reader must draw most of his conclusions from the data presented.

TRADE PUBLICATIONS.

(The standard sizes for pamphlets and trade catalogues recommended by all the principal engineering societies of the United States are: 3½x6 ins., 6x9 ins., and 9x12 ins.)

AIR-BRAKES.—Hunt Air Brake Co., Pittsburg, Pa. Cloth; 5 x 6½ ins.; pp. 56; illustrated.

This is the instruction book for the maintenance and handling of the Hunt air-brake system, which is intended especially for electric street car traffic. It may be installed to operate either according to the automatic or the straight air systems. The compressor may be placed upon the car axle or it may be driven by an independent motor.

USEFUL INFORMATION FOR PRACTICAL PEOPLE.—Foree Bain, Consulting Engineer and Registered Solicitor of Patents, Monadnock Block, Chicago. Cloth; 2¾ x 5¾ ins.; pp. 100. 4 cts., or 29 cts. with leather book cover and card case.

The useful information is varied in character, including explanations of electrical terms, tables of power, etc., for electric cars, notes on power and gearing, weights and measures, and particulars as to the methods and cost of taking out patents.

ROTARY CONVERTERS.—Westinghouse Electric & Mfg. Co., Pittsburg, Pa. Paper; 7 x 10 ins.; pp. 16; illustrated.

Although the rotary converter has been in commercial use for a short time only, it has already developed into standard types and is now no more subject to variation in design than other types of electrical machinery. The machines built by the Westinghouse company are intended for frequencies of 25, 30 and 60 cycles, and the standard voltages are 250 and 550.

To prevent hunting, a metallic grid is sunk into the pole-faces. Starting from the alternating current side is accomplished by a small induction motor on the end of the shaft. When transforming from direct to alternating currents a direct coupled exciter is used having unsaturated fields. If the machine tends to speed up, the exciting current is increased, which strengthens the field of the rotary and prevents a further increase of speed. In this way it is possible to secure automatically a nearly constant speed and frequency.

HOISTING AND CONVEYING APPARATUS.—The Brown Hoisting and Conveying Machine Co., Cleveland, O. Cloth; 12 x 9 ins.; pp. 143; profusely illustrated.

There has not come to this office in a long time so artistic and thoroughly creditable a production in the line of trade catalogues as the volume here noted. Really, it might well be called a treatise on the class of modern machinery which it covers, for it is a work which every engineer interested in this field of work will wish to have in his library. The illustrations are chiefly half-tone reproductions of photographs, but they are of superlative quality, and what is more important still show with admirable clearness just the especial features to which it is desired to direct attention. It would be difficult to estimate the influence which the machines produced by this enterprising firm have had in furthering the development of cheap iron and steel production from the Lake Superior ores. The company is all the time enlarging its field of operations, however, and its cantilever cranes for shipyards, its "fast plants" for the piers of ocean steamships, its blast furnace hoists, its trench machines, and its cableways are examples of the more recent lines of work in which it is achieving success. That so large and prosperous a business should have been built up in comparatively few years about the inventions of Mr. Alex. E. Brown, M. Am. Soc. M. E., the Vice-President and Chief Engineer of the company, is a remarkable tribute to his ingenuity and business ability.

CONSTRUCTION NEWS.

CONDENSED LIST OF CONTRACTS PENDING WITH DATE OF OPENING BIDS.

Bids to be opened.	Work.	Place.	See Eng. News.
Aug. 30.	Brick paving	Lima, O.	Aug. 23
Aug. 30.	Bridge	Silverton, Wash.	Aug. 23
Aug. 30.	Levee work	Memphis, Tenn.	Aug. 23
Aug. 30.	Reservoir, water pipe, etc.	Algonquin, Ill.	Aug. 23
Aug. 30.	Pumping machinery	Washington, D. C.	Aug. 23
Aug. 30.	Water-works	Southern Pines, N. C.	Aug. 16
	Advertised, Eng. News, Aug. 16 and 23.		
Aug. 30.	Paving	Janesville, Wis.	Aug. 16
Aug. 30.	Water-works	Morrillton, Ark.	Aug. 16
	Advertised, Eng. News, Aug. 16 and 23.		
Aug. 30.	Electric plant, etc.	Stephen, Minn.	Aug. 16
Aug. 30.	Pumping plant, etc.	Stephen, Minn.	Aug. 16
Aug. 30.	Scow	Snohemish, Wash.	Aug. 9
Aug. 30.	Asphalt paving	Lima, O.	Aug. 9
Aug. 30.	Guard house	Washington, D. C.	Aug. 9
Aug. 30.	Altering heating plant	Topeka, Kan.	Aug. 2
Aug. 30.	Trestle	Snohomish, Wash.	Aug. 9
Aug. 30.	Artesian well	Clayton, Ala.	Aug. 2
	Advertised, Eng. News, Aug. 2 and 9.		
Aug. 31.	Filling	Fort Caswell, N. C.	Aug. 2
	Advertised, Eng. News, Aug. 2 to 23.		
Aug. 31.	Electric lighting	Pensacola, Fla.	Aug. 2
Aug. 31.	Paving	Lima, O.	Aug. 9
Aug. 31.	Boilers	New London, Conn.	Aug. 16
Aug. 31.	Sea wall	National Soldiers' Home, Va.	Aug. 16
Aug. 31.	Police station	Cleveland, O.	Aug. 16
Aug. 31.	Paving	Cleveland, O.	Aug. 16
Aug. 31.	Water-works	Lancaster, N. Y.	Aug. 23
Aug. 31.	Eliminating grade-crossing	Erie R. R.	Aug. 23
	Advertised, Eng. News, Aug. 23 and 30.		
Aug. 31.	Bridge work	Larina, Mont.	Aug. 23
Aug. 31.	Wharf, Hull	Que.	Aug. 23
Aug. 31.	Brick paving	Galesburg, Ill.	Aug. 23
Aug. 31.	Stable building	Washington, D. C.	Aug. 30
Aug. 31.	Pipe sewer	Omaha, Neb.	Aug. 30
Aug. 31.	Asphalt paving	Chester, Pa.	Aug. 30
Aug. 31.	Bridge substructure	Ottawa, Ont.	Aug. 30
Sept. 1.	Mill building	Shreveport, La.	Aug. 30
Sept. 1.	Library building	St. Joseph, Mo.	Aug. 30
Sept. 1.	Jail building	Marble, Colo.	Aug. 30
Sept. 1.	School house	Sparta, Mich.	Aug. 30
Sept. 1.	Electric plant	Grand Rapids, Mich.	Aug. 30
Sept. 1.	Addition to building	Togus, Me.	Aug. 30
Sept. 1.	Frame school house	Foxboro, Mass.	Aug. 30
Sept. 1.	Court house	Westville, Miss.	Aug. 30
Sept. 1.	School house	Vandalia, O.	Aug. 30
Sept. 1.	Brick paving	North Adams, Mass.	Aug. 30
Sept. 1.	Macadam road	Wheeling, W. Va.	Aug. 30
Sept. 1.	Gas well	Medicine Hat N.W. Ter.	Aug. 23
Sept. 1.	Church building	Hollandale, Mass.	Aug. 23
Sept. 1.	Steel frame for building	Washington, D.C.	Aug. 23
Sept. 1.	School house	Washington, D. C.	Aug. 23
Sept. 1.	Brick paving	North Adams, Mass.	Aug. 23
	Advertised, Engineering News, Aug. 23.		
Sept. 1.	Masonic temple	South Boston, Va.	Aug. 23
Sept. 1.	Levees, etc.	New Orleans, La.	Aug. 23
Sept. 1.	Improvement bonds	Cohoes, N. Y.	Aug. 23
Sept. 1.	Electric plant bonds	Kirkwood, Mo.	Aug. 16
Sept. 1.	Street bonds ($10,000)	Greensboro, Ala.	Aug. 16
Sept. 1.	Surveying road	Manchester, N. H.	Aug. 16
Sept. 1.	Asylum building	Austin, Tex.	Aug. 16
Sept. 1.	Conduit	Washington, D. C.	Aug. 16
Sept. 1.	Officers' quarters	West Point, N. Y.	Aug. 9
	Advertised, Eng. News, Aug. 9 to 23.		
Sept. 1.	Electric plant	Alliance, O.	Aug. 9
Sept. 1.	Pumping engine, etc.	Indianapolis, Ind.	July 12
Sept. 3.	Paving	San Antonio, Tex.	Aug. 2
Sept. 3.	Paving	West Shoals, Ind.	Aug. 2
Sept. 3.	Paving	Sandusky, O.	Aug. 9

Sept. 3. Brick paving, Toledo, O. ..... Aug. 9
Sept. 3. Sewer bonds ($50,000), Mansfield, O. ..... Aug. 16
Sept. 3. Artesian well, Sanborn, Minn. ..... Aug. 23
Sept. 3. Sewers, Shelby, O. ..... Aug. 23
Sept. 3. Improving street, Millersburg, O. ..... Aug. 23
Sept. 3. Brick paving, Wauseon, O. ..... Aug. 23
Sept. 3. Paving, San Antonio, Tex. ..... Aug. 23
Sept. 3. Gravel road (1½ miles), Columbus, Ind. ..... Aug. 23
Sept. 3. Gravel road, Friarpoint, Miss. ..... Aug. 23
Sept. 3. Jail building, Hamilton, Mont. ..... Aug. 23
Sept. 3. Pipe sewers, Holland, Mich. ..... Aug. 30
Sept. 3. Paving bonds, Lima, O. ..... Aug. 30
Sept. 3. Steel bridge, Rome, N. Y. ..... Aug. 30
Sept. 3. Water pipe, etc., Montgomery, Ala. ..... Aug. 30
Sept. 3. Sprinkling carts, New Haven, Conn. ..... Aug. 30
Sept. 3. Water-works, North Chicago, Ill. ..... Aug. 30
Sept. 3. School house, Altoona, Pa. ..... Aug. 30
Sept. 3. Sewer, Philadelphia, Pa. ..... Aug. 30
Sept. 3. Boiler, New Paynesville, Minn. ..... Aug. 30
Sept. 4. Naval supplies, Washington, D.C. ..... Aug. 30
Sept. 4. Breakwater, wharf, etc., Newport, R. I. ..... Aug. 30
Sept. 4. Plumbing, etc., Macon, Ga. ..... Aug. 30
Sept. 4. Water supply well, Spring Green, Wis. ..... Aug. 30
Sept. 4. Rapid transit tunnel, Boston, Mass. ..... Aug. 30
Advertised, Engineering News, Aug. 30.
Sept. 4. Town hall, Crowley, La. ..... Aug. 30
Sept. 4. Altering building, Bloomington, Ill. ..... Aug. 30
Sept. 4. Painting bridges (2), Westerly, R. I. ..... Aug. 30
Sept. 4. Lumber for bridge, New York, N. Y. ..... Aug. 30
Sept. 4. Water bonds, Rossland, B. C. ..... Aug. 30
Sept. 4. Water mains, Redwood City, Cal. ..... Aug. 30
Sept. 4. Crusher and road roller, Brainerd, Minn. ..... Aug. 23
Sept. 4. Barracks, etc., Boston, Mass. ..... Aug. 23
Sept. 4. Addition to hospital, Reading, Pa. ..... Aug. 23
Sept. 4. Heating plant, Algona, Ia. ..... Aug. 23
Sept. 4. Paving, Dayton, O. ..... Aug. 23
Sept. 4. U. S. building, Blair, Neb. ..... Aug. 23
Sept. 4. Completing reservoir, Pittsburg, Pa. ..... Aug. 23
Sept. 4. Pumping engines, Pittsburg, Pa. ..... Aug. 23
Sept. 4. Asphalt paving, Cincinnati, O. ..... Aug. 16
Sept. 4. Asphalt paving, Springfield, Mass. ..... Aug. 16
Sept. 4. Heating plant, Bristol, Tenn ..... Aug. 16
Sept. 4. Public bath building, Albany, N. Y. ..... Aug. 9
Sept. 4. Water-works, Jassy, Roumania ..... Aug. 9
Sept. 4. Granite paving, Albany, N. Y. ..... Aug. 30
Sept. 4. Park improvements, Albany, N. Y. ..... Aug. 30
Sept. 5. Asphalt paving, Owensboro, N. Y. ..... Aug. 30
Advertised, Engineering News, Aug. 30.
Sept. 5. Electric lighting, Tamaqua, Pa. ..... Aug. 9
Advertised, Eng. News, Aug. 9 and 16.
Sept. 5. Pile bridge, Dillon, Mont. ..... Aug. 9
Sept. 5. Dredging, Oakland, Cal. ..... Aug. 16
Sept. 5. City lighting, Fairview, N. J. ..... Aug. 23
Sept. 5. Repairing court house, Baltimore, Md. ..... Aug. 23
Sept. 5. Addition to court house, Cleveland, O. ..... Aug. 23
Sept. 5. Electric franchise, Los Angeles, Cal. ..... Aug. 23
Sept. 5. Sewers, Pittsburg, Pa. ..... Aug. 30
Sept. 5. Cisterns (9), Fort Stevens, Ore. ..... Aug. 30
Sept. 6. Bridge, New York, N. Y. ..... Aug. 30
Sept. 6. Altering building, Fort Greble, R. I. ..... Aug. 30
Sept. 6. School house, Natchez, Miss. ..... Aug. 30
Sept. 6. Asphalt blocks, etc., Brooklyn, N. Y. ..... Aug. 30
Sept. 6. Bridge work, Rockville, Ill. ..... Aug. 30
Sept. 6. County bridges, Sacramento, Cal. ..... Aug. 30
Sept. 6. Water tower, Alliance, O. ..... Aug. 23
Sept. 6. Electrical machinery, New London, Conn. ..... Aug. 23
Sept. 6. Park work, New York, N. Y. ..... Aug. 30
Sept. 6. Paving, Geneva, N. Y. ..... Aug. 30
Advertised, Engineering News, Aug. 30.
Sept. 7. Water-works, Wheaton, Minn. ..... Aug. 23
Sept. 7. Jail building, Mineola (L. I.), N. Y. ..... Aug. 23
Sept. 7. Temporary library building, Cleveland, O. ..... Aug. 23
Sept. 7. School house, Seattle, Wash. ..... Aug. 23
Sept. 7. Sewer, Cleveland, O. ..... Aug. 30
Sept. 7. Bridges (5), Rockville, Ill. ..... Aug. 30
Sept. 8. Building, New York, N. Y. ..... Aug. 23
Sept. 8. River improvements, Sacramento, Cal. ..... Aug. 23
Sept. 8. Sewers, Washington, D. C. ..... Aug. 23
Advertised, Engineering News, Aug. 23.
Sept. 8. Pumping plant, New York, N. Y. ..... Aug. 16
Sept. 8. Electrical supplies, New York, N. Y. ..... Aug. 30
Sept. 8. Lumber for bridges, Oroville, Cal. ..... Aug. 30
Sept. 8. Paving, etc., Youngstown, O. ..... Aug. 30
Sept. 10. Macadam paving, East Orange, N.J. ..... Aug. 30
Sept. 10. School house, New Auburn, Me. ..... Aug. 30
Sept. 10. Bridge, Haley, Idaho. ..... Aug. 30
Sept. 10. Bridge, Moscow, Idaho. ..... Aug. 30
Sept. 10. Water-works, Mondovi, Wis. ..... Aug. 30
Sept. 10. Garbage crematory, Oil City, Pa. ..... Aug. 30
Sept. 10. Water pipe, Holyoke, Mass. ..... Aug. 30
Advertised, Eng. News, Aug. 30 and Sept. 6.
Sept. 10. Water-works, Smithfield, Va. ..... Aug. 30
Advertised, Engineering News, Aug. 30.
Sept. 10. Plans sewage disposal, Wauwatosa, Wis. ..... Aug. 30
Advertised, Engineering News, Aug. 30.
Sept. 10. Water mains, etc., Barberton, O. ..... Aug. 30
Sept. 10. Wells, Solway, Minn. ..... Aug. 30
Sept. 10. School house, Cleveland, O. ..... Aug. 16
Sept. 10. Water bonds, etc., Oklahoma City, Okla. ..... Aug. 16
Sept. 10. Cement, Mansfield, O. ..... Aug. 16
Sept. 10. Sewer pipe, Mansfield, O. ..... Aug. 16
Sept. 10. Garbage disposal plant, Mansfield, O. ..... Aug. 16
Sept. 10. School buildings, San Carlos, Ariz. ..... Aug. 16
Sept. 10. Post office building, Stockton, Cal. ..... Aug. 9
Sept. 10. Plans for opera house, Jackson, Miss. ..... Aug. 23
Sept. 10. Macadam road, Camden, N. J. ..... Aug. 23
Advertised, Eng. News, Aug. 23 and 30.
Sept. 10. Barracks, Philadelphia, Pa. ..... Aug. 23
Sept. 10. Sewers, Toledo, O. ..... Aug. 23
Sept. 10. Repairing plumbing, Boston, Mass. ..... Aug. 23
Sept. 11. Wiring system, Washington, D. C. ..... Aug. 23
Sept. 11. Pumping engines (2), Detroit, Mich. ..... July 26
Advertised, Engineering News, July 26.
Sept. 11. Electric plant, Iola, Kan ..... Aug. 16
Advertised, Eng. News, Aug. 16 and 23.
Sept. 11. Water-works, etc., Iola, Kan ..... Aug. 16
Advertised, Eng. News, Aug 16 and 23.
Sept. 11. Naval supplies, Mare Island, Cal. ..... Aug. 30
Sept. 11. Pumping machinery, Bridgeton, N. J. ..... Aug. 30
Sept. 12. Library building, Cheyenne, Wyo. ..... Aug. 30
Sept. 12. Water-works, Luray, Va. ..... Aug. 30
Advertised, Eng. News, Aug. 30 and Sept. 6.
Sept. 12. Library building, Cheyenne, Wyo. ..... Aug. 16
Sept. 12. U. S. building, Beaumont, Tex. ..... Aug. 16
Sept. 12. Dredging, Chicago, Ill. ..... July 19
Sept. 12. Water-works, Hyattsville, Md. ..... Aug. 2
Advertised, Eng. News, Aug 2 to 16.
Sept. 14. Dredging, Savannah, Ga. ..... Aug. 16
Advertised, Eng. News, Aug. 16, 23, Sept. 6.
Sept. 14. Accumulators, etc., New London, Conn. ..... Aug. 23

RAILWAYS.

ANGELINA & NECHES RIVER.—The company has been incorporated with a capital of $75,000, to build a line 12 miles long from Keltys to Manton, Angelina county, Tex. J. H. Kurth, S. W. Henderson and Eli Wiener are incorporators.

ARIZONA COOPER CO.—Los Angeles papers state that this company, with offices at Clifton, Ariz., will broaden the gage of its narrow gage road for its entire length of 75 miles, between Clifton and Lordsburgh. It is also stated that the line will probably be extended to Deming, N. Mex. Work on strengthening the bridges has been begun.

BALTIMORE & OHIO.—Douglas Gilmor & Co., Railroad Contractors, Baltimore, Md., are reported to have been awarded the contract for constructing a tunnel and making alterations to straighten out and shorten this road at Ilchester, Md.

BRAINERD & NORTHERN MINNESOTA.—It is stated that work on construction to this line will commence this summer. The extension will be 25 miles long. W. H. Gemmell, Gen. Mgr., Brainerd, Minn.

CAROLINA & NORTHWESTERN.—It is proposed to extend this road to Butler, Tenn., about 40 miles. The object is to reach the coal mines. L. T. Nicholls, Gen. Mgr., Chester, S. C.

CHICAGO TRANSFER & CLEARING CO.—This company began work last week on the proposed new yards, near Summit, Ill., to cost about $10,000,000. D. D. Streeter & Co., who are the contractors, are building an artificial hill to be three miles long, 700 ft. wide and 22 ft. high. About $1,000,000 worth of work will be done this year. Mr. Swanitz, Ch. Engr., C. T. & C. Co., Ellsworth Bldg., Chicago; Howard North, Asst. Ch. Engr.; A. D. McDougal, Engr. for Streeter & Co., Summit.

CITY TERMINAL CO.—This company has secured a strip of land about 100 ft. wide in Kansas City, Kan., on which it is proposed to provide terminals for the railroads. At present the terminals are used by only the Chicago Great Western, but with the additional land extensions will soon be made. The C. G. W. will build repair shops on the Kansas side of the river, according to reports.

CLEVELAND, AKRON & COLUMBUS.—A mortgage has been filed in Akron, O., in favor of the Commercial Trust Co. to the amount of $4,000,000. The proceeds of the bonds are to be used for general improvements upon the road. S. E. Burke, Engr. M. W., Akron.

CLEVELAND, CINCINNATI, CHICAGO & ST. LOUIS.—Reports state that this company will spend $25,000 for improving its property at Kankakee, Ill., including a new station, round house, etc. Harvey Dodge, Supervisor Bridges and Buildings, Mattoon, Ill.

DELAWARE, LACKAWANNA & WESTERN.—The ordinance permitting this road to elevate its tracks from Third St. to the Millburn line and to bridge Parker and Jefferson Aves. and Baker St. was passed at a meeting of the South Orange township (N. J.) committee last week. W. K. McFarlin, Ch. Engr., Hoboken, N. J.

DES MOINES, IOWA FALLS & NORTHERN.—Preliminary surveys for a section of this line from Des Moines to Iowa Falls, Ia., have been made. The line will later be built from Duluth to either Osage or Mason City, Ia.

GEORGIA.—Arrangements are reported as being made by Mr. Hobson, of Quitman, Ga., and J. B. Way, of Boston, Ga., for building a line from Boston toward Monticello, Fla. A large saw mill will be built at the terminus of the line.

GREAT EASTERN.—This company has been incorporated to build a line to connect Raleigh with the eastern section of North Carolina, about 160 miles. Capital stock, $2,000,000. It is said that contracts have already been let to Richmond firms and that work has begun. J. W. Lynch, of Kinston, N. C.; L. V. Morrill, Snow Hill, N. C., and J. H. Macleary, of Suffolk, Va., are interested.

GULF & SHIP ISLAND.—J. B. Hatch, Ch. Engr., Gulfport, Miss., writes us that 160 miles of the main line will be completed Sept. 1 from Gulfport to Jackson, Miss., and also two other sections of 41 and 48 miles each. The entire line will be about 300 miles long. J. T. Jones, Pres., Buffalo, N. Y.

HELENA, ARK.—Surveys for the proposed line to Helena or Friars Point, Miss., from Water Valley, Miss., have been made, and a meeting to consider the reports and the matter of construction will be held Sept. 4 at Helena.

HOLLY RIVER AND ADDISON.—Geo. A. Heckmer, Palmer, W. Va., writes us that surveys have been made and right of way secured for this line from Diana to Addison, W. Va., 12½ miles. Work will probably be begun in the near future. F. Barber, Ch. Engr., Grafton, W. Va.

INDIANA.—Reports state that arrangements have been completed to begin work on a proposed line from New Haven to Butler, Ind., 28 miles, to connect with the Detroit and Toledo lines of the Wabash R. R. Chas. W. Orr, of the Hamilton National Bank, Fort Wayne, Ind., is interested.

KANSAS CITY, OKLAHOMA & SOUTHERN R. R. & CONSTRUCTION CO.—This company has been incorporated with a capital of $500,000 by Adolphus Owings, of Garfield county, and Geo. J. Patterson, of Grant county, Okla. Ter., to build a road from Medford to Augusta, Ark., with headquarters at Perry, Okla. Ter.

LAKE MICHIGAN & SOUTHEASTERN.—This company has been incorporated with a capital of $10,000, to build from township 9 on the Ohio and Michigan line to Napoleon, O. Edward Gaudern, Jas. O. Marshall and T. R. Davis, of Napoleon, are incorporators.

MERRILL, WIS.—Langley & Alderson, of Merrill, are reported to have been awarded the contract to build a logging railway, 11 miles long, to the lands of the A. H. Strange Lumber Co. and the Merrill Lumber Co.

MINNESOTA.—Surveys for a line in the Minnesota bottoms from the junction of the Gulf & Manitoba with the Minneapolis and St. Louis to Delhi are being made, according to reports.

NUNUNDAH.—This company has been incorporated with a capital of $25,000, to build a line ten miles long from Eldred township, McKean county, Pa., to a point on the Pennsylvania and New York boundary line. Sheridan Garten, Pres., Smethport, Pa.

OHIO.—H. E. Willard, of Cleveland, is reported to have secured options on 18,000 acres of coal land in Warren and Wells townships, Jefferson county, O., and will at once build branch railways and arrange for developing the mines.

OREGON R. R. & NAVIGATION CO.—It is reported that the company has plans for improvements to be made to the main line, between Pendleton and Umatilla, Ore. It is not stated when the work will be started. The improvements will include the straightening of the line and the lessening of the heavy grades between those points. The company is said to be considering the proposition of making a change in the main line so as to make the junction, now at Umatilla, at Castle Rock. For this purpose a survey has been run from Echo to Castle Rock, intervening between those two points and shortening the distance about 13 miles, besides avoiding heavy grades. W. H. Kennedy, Ch. Engr., Portland, Ore.

PITTSBURG, BINGHAMTON & EASTERN.—We are informed that at a meeting of the stockholders of this company, between Towanda and Binghamton, the Bradford Central R. R. Co., between Towanda and Canton, and the Canton & Wellsboro R. R. Co., between Canton and Ansonia, it was voted to merge these corporations all into the Pittsburg, Binghamton & Eastern Ry. Co., forming a line between Ansonia and Binghamton, about 120 miles in length. Surveys are nearly completed, rights of way under deed, and the construction of the line will commence this fall. F. A. Sawyer, Pres., Towanda, Pa.; Chas. L. Tracy, Vice-Pres.; R. P. McCormick, Ch. Engr., Towanda.

PITTSBURG, VIRGINIA & CHARLESTON.—The Drake & Stratton Co, Ltd, Pittsburg, Pa, has been awarded a contract for straightening the line from the Pennsylvania bridge across to Monongahela River in Pittsburg to Becks Run at a cost of $300,000 in this connection the Pennsylvania has bought or optioned $1,000,000 worth of private property, which is needed to make this improvement. W. H. Brown, Ch. Engr. Pennsylvania R. R., Philadelphia.

PENNSYLVANIA.—Surveys are reported to be under way for a line from Castle Shannon to a point on the Monongahela-Washington R. R., a short distance below Bentleysville. The line will be about 20 miles in length. ——The Juniata Coal Co. is having surveys made for a railway from Millsboro via Clarksville to Bellsville.

PROVIDENCE & DANIELSON.—It is stated that construction will begin at once on this line to Danielson, Conn., 35 miles, the materials having already been purchased. Winton K. Nash, Ch. Engr., Providence, R. I.; Geo. W. Prentice, Pres., Providence.

RIO GRANDE.—We are informed that the proposed line up Texas Creek into the Wet Mountain Valley is being constructed by this company, and that the grading is under contract to the grading firm of Orman & Crook, of Pueblo, Colo.; the bridge work is being done by the company. About half of the line is located and preliminary lines over the balance of the distance. The work is being pushed, and it is the intention to complete the construction of the line and the laying of the track before winter. The lower five miles will have a large percentage of curvature on account of development required to maintain supported grade; the remaining 21 miles of the line will be in general of very good alinement. M. H. Rogers, Ch. Engr., Denver, Colo.

ROCK ISLAND & EASTERN.—This company has changed its name to the Davenport, Rock Island & Northwestern, and has increased its capital stock from $100,000 to $4,000,000. The road is to run from Peoria, Ill., to Rock Island, and will be a part of the Chicago & Northwestern system.

SAN FRANCISCO & SAN JOAQUIN VALLEY.—This company has been granted permission to operate a line on Illinois St, San Francisco, Cal.

SANTA FE, PRESCOTT & PHOENIX.—W. A. Drake, Ch. Engr., Prescott, Ariz., writes us that nothing further has been done on the proposed road from Congress Junction, Ariz., to Hillside, beyond making a reconnoissance. A survey has been started by the company for a line from Mayor, Ariz., to the Crown King Mine, in the Bradshaw mining district, a distance of about 25 miles.

SANTA FE & ARIZONA SOUTHERN.—Jas. C. Talmage, secy. and Treas., Los Angeles, Cal., writes us that the contracts for building this proposed line from Seligman, Ariz., and Sullivan to Chino, Summit, Warren, Boulder, Hillside, etc., 90 miles, have been let. The final surveys have been made. H. T. Richards, Ch. Engr., Seligman; W. F. Botsford, Pres., Los Angeles; E. J. Carter, Gen. Mgr., Los Angeles.

SOUTHERN PACIFIC.—Oakland, Cal., papers state that this company will reclaim the land between First and Fifth Sts., and Cypress and Union Sts., probably for the purpose of enlarging the freight yards. A roundhouse for 50 locomotives and machine shops employing about 900 men will be built. J. Kruttschnitt, Gen. Mgr., San Francisco.

TEXAS CENTRAL.—C. Hamilton, Vice-Pres. and Gen. Mgr., Waco, Tex., writes us that the company has decided not to build the extension from Dublin to Thurber, or from any other point on the line to Thurber, for the present.

TEXAS & NEW ORLEANS.—This company has applied to the Railroad Commission of Texas for authority to issue bonds at $20,000 per mile for 165 miles.

WASHINGTON.—The question of building a line from the Columbia & Western branch of the Canadian Pacific into Republic, Wash., about 40 miles, is being considered by John A. Manley, of Grand Forks, B. C., and other Canadian capitalists.

WEST SHORE.—Reports state that this company, through the N. Y. C. & H. R. R. R. Co., will spend about $3,000,000 in making improvements to the Weehawken, N. J., terminals. The work will include 13 new piers, and additional grain elevators, enlargement of the freight yards etc. In the next year only a few tracks will be laid and one or two piers built, etc. It is not intended to do any great amount of work on the large improvements for some time to come.——The city authorities of Watertown, N. Y., have submitted an application to the state board of railroad commissioners to consider means of eliminating the grade crossing at Arsenal St. of the New York Central & Hudson River R. R. W. J. Wilgus, Ch. Engr., Grand Central Station, New York.

STREET AND ELECTRIC RAILWAYS.

WESTBROOK, ME.—It is stated that the work of grading the extension of the Westbrook, Windham & Naples Ry. Co., from Windham to White's Bridge, will be started at once. J. C. Scates, Pres.; C. M. Waterhouse, Mgr.

WILBRAHAM, MASS.—The selectmen are said to be in favor of granting the Palmer & Monson St. Ry. Co. a franchise to run its line through this town. Chas. F. Grosvenor, Pres., Palmer, has stated that the construction will begin within a month after the franchise is granted.

PAWTUCKET, R. I.—At a recent meeting of the joint committee on railways and the representatives of the company, plans were submitted by the latter for the reconstruction of the entire narrow gage street railway system in this city and the Blackstone Valley road. The proposed improvements will represent an expenditure of about $580,000. Marsden J. Perry, Vice-Pres.

BRISTOL, CONN.—Reports state that the directors of the Bristol & Plainville Tramway Co. have voted to extend the line to Terryville station. Preliminary surveys have been completed. C. S. Treadway, Pres.; E. C. Smith, Ch. Engr.

ALBANY, N. Y.—The Albany & Schoharie Valley R. R. Co. has submitted its yearly report to the railroad commissioners, in which it announces the intention of building 48 miles of main line and eight miles of branches and sidings. Harry W. Burgett, Pres.

CAZENOVIA, N. Y.—Press reports state that plans for the construction of the road from Edwards Falls to this city are progressing rapidly. The estimated cost of the work is about $150,000. James Barrett is said to be interested.

GLENS FALLS, N. Y.—J. A. Powers, Lansingburgh, writes us that surveys have been completed on the line

of the Warren County Ry., from this city to Caldwell via Warrensburg, about 16 miles. The capital for construction has been secured, but the company is not yet ready to let contracts for construction. A. B. Colvin, Pres.

ROCHESTER, N. Y.—The Buffalo, Niagara Falls & Rochester Ry. Co. has been incorporated with a capital of $1,250,000, to build a line from this city to Buffalo and Niagara Falls. W. H. Gillette, of Charlotte; Allen C. Beach, of Watertown; Geo. L. Brown, George Moss, and Wm. C. Gray are interested.

WATERTOWN, N. Y.—It is stated that the Black River Traction Co. will construct an extension of its line to Carthage. S. R. Smith, Supt., 172 Main St.

ATLANTIC CITY, N. J.—Announcement has been made of the Atlantic City Passenger Ry. Co.'s intention to build an electric line on Pacific Avenue., across the Meadow turnpike and through Pleasantville and Absecon, over the shore road. Wm. H. Bartlett, Pres.; G. A. Aldrich, Gen. Mgr.

BEAVER, PA.—W. R. Wright and W. F. Snyder, of Philadelphia, are said to have purchased the Beaver Valley Traction Co. About 8 miles of new tracks will be laid, and the entire system double tracked, at a cost of about $200,000. Henry S. Newton, of Syracuse, N. Y., will probably be appointed superintendent.

HARRISBURG, PA.—Press reports state that the Harrisburg Traction Co. will extend its Sixth St. line to Rockville. F. B. Musser, Supt., 7 South Market St.

PHILADELPHIA, PA.—The Philadelphia, Glenside & Willow Grove Ry. Co. was recently incorporated with a capital of $100,000, to construct a line from Cheltenham to Abington township, about six miles. W. T. B. Roberts is said to be interested.

PITTSBURG, PA.—M. K. McMullin, 306 Fourth Ave., is said to have purchased the lines of the West End Traction Co. for $4,500,000.

YORK, PA.—Local papers report that the York County Traction Co. has filed a mortgage for $1,500,000, part of the proceeds of which will be used to extend and improve the system.

ROCKVILLE, MD.—The council has granted permission to the Washington & Rockville Ry. Co. to extend its line into this city. George Truesdell, Pres., 14th and E. Capitol Sts., Washington, D. C.

FAIRMONT, W. VA.—The Fairmont & Clarksburg Electric Ry. Co. was recently incorporated with a capital of $100,000, to construct a line to Clarksburg, by J. N. Camden and I. H. Davis, of Parkinsburg, and others.

HUNTINGTON, W. VA.—The Ohio Valley Electric Ry. Co. has been incorporated with a capital of $1,000,000 to construct a line from this city to Ironton, O. Thomas J. Ryan and H. S. Calo, both of Huntington, and others are interested.

WHEELING, W. VA.—The Northern Ohio Electric Co. has been organized to build a line from this city to Wellsburg, W. Va. H. Hazlett, Pres.; John Arbenz, Secy.

MONTGOMERY, ALA.—Francis E. Ayers, Ch. Engr., writes us that the proposed line of the Montgomery Eastern & Terminal Ry. will be about 11 miles long; three miles will be completed about Sept. 26, and the rest will be done this winter. All rights of way have been secured and capital subscribed.

CINCINNATI, O.—The Cincinnati St. Ry. Co. is considering the proposition of building an extension from Avondale to Herwood over Northside Ave. F. R. Weizenecker, Ch. Engr.

CINCINNATI, O.—It is stated that the Mill Creek St. Ry. Co. will erect a power house and car barn on De Camp Ave., to cost about $125,000. W. G. Wagenhals, Mgr.

COLUMBUS, O.—G. W. Dun writes us that the Suburban Electric Co. has not yet secured the full right of way for its proposed line from Columbus to Dublin and Hilliards. Paul Jones, Pres.

COSHOCTON, O.—The county commissioners have granted a franchise to the Zanesville, Adamsville & Coshocton Electric Ry. Co., to extend its line from Zanesville to Coshocton by way of Sonora, East Greenwoode, Adamsville, Otsego, Plainfield and West Lafayette.

DECATUR, IND.—Reports state that the county commissioners have granted a franchise to L. B. McIlhenny of Cincinnati, O., to construct a line from this city to Fort Wayne.

NEW ALBANY, IND.—The New Albany St. R. R. Co. has been granted a franchise to build, equip and operate an electric line. At least three miles of track must be completed by Dec. 31, 1901.

NOBLESVILLE, IND.—Surveys are said to have been completed for the proposed line of the Central Traction Co. from Board Ripple to Kokomo, by way of Cicero, Arcadia and Elwood. Charles Ford, Gen. Mgr., Kokomo.

PERU, IND.—The commissioners of Miami county have granted a franchise for an electric road in Miami county to the Wabash River Traction Co., Wabash. F. C. Boyd, of New Haven, Conn., is interested.

DETROIT, MICH.—The Detroit, Plymouth & Northville Ry. Co. has applied for a franchise in Novi county for an extension to Walled Lake. J. A. Russell, Pres.——A. E. McKinnon, of Farmington, Mich., representing the Oakland County Ry. Co., has also applied for a franchise in Novi county.

DETROIT, MICH.—Wm. H. Ashwell, 25 Whitney Opera House Block, Ch. Engr., writes us that surveys for about 24 miles of the line of the Michigan & Ohio Electric R. R., from Toledo to Maybee, have been made and plans and specifications are now being prepared. Capital for construction is being arranged for It is expected to let contracts for grading, etc., in about a month.

APPLETON, WIS.—A. R. Hutchinson, Weyauwega, writes us that surveys have been made and rights of way secured for the proposed line between Berlin, Weyauwega, New London, and Wautoma, about 70 miles long, to be operated by electricity. The capital has not yet been subscribed.

NEVADA, MO.—J. B. Quigley, Pres., 207 E. Cherry St., writes us that the Missouri Water, Light & Traction Co. will build a line between Ft. Scott, Nevada, Monterallo, Jerico Spring and Arcola, about 60 miles. The building of the line in Nevada and the principal part of the survey has been completed to the power house, and five miles of the line are in operation. The company has resources to build about 20 miles more, and when this is finished it will undertake to finance the balance. The company does its own work and lets the contracts for material privately.

ELECTRIC LIGHT AND POWER.

PORTLAND, ME.—It is stated that the Portland Railway & Terminal Co. will erect a plant to cost about $100,000.

NEW YORK, N. Y.—Bids are asked until Sept. 8 for furnishing and installing a switchboard panel, engine and dynamo at the house of refuge for juvenile delinquents on Randall's Island; A. E. Orr, Pres. Bd. Mgrs.——Reports state that the New York Gas & Electric Light, Heat & Power Co. has purchased land and will erect a new power house at Ryder Ave., near 114th St., Bronx Borough. Thomas E. Murray, Mgr.

SAYVILLE (L. I.), N. Y.—The Sayville Electric Co. is said to have let the contract for its new plant, to cost about $10,000, to the Lewitt & Warden Electric Light Co., of Newburgh.

SENECA FALLS, N. Y.—Reports state that the council has let the contract for lighting the city for a period of five years to the Seneca Falls Electric Light Co.

BELLEFONTE, PA.—E. L. Hoy, E. L. Orvis and others have incorporated the Bellefonte Electric Co., which will erect a plant to furnish light to this and neighboring towns.

FREDERICKSBURG, VA.—Bids are asked until Sept. 18 for erecting the municipal plant to operate about 80 2,000-c. p. arc lights. E. I. Willis, Engr., Richmond; T. McCracken, Chn. Light Com.

MANCHESTER, VA.—The contract for erecting the plant of the Richmond Electric Co. at Semmes and Eighth Sts. is said to have been let to J. T. Wilson. Noland & Baskerville, Archs., Chamber of Commerce Bldg., Richmond.

SPARTANBURG, S. C.—Reports state that Ladshaw & Ladshaw have received the contract for developing the water power in Broad River in Rutherford county.

MACON, GA.—The chamber of commerce is considering the question of municipal ownership for a plant and water-works, according to reports. George A. Smith, Pres.

HILL CITY, TENN.—Press reports state that the people of this town are considering the question of building a plant and water-works.

SPENCERVILLE, O.—Bids are asked until Sept. 15 for erecting the new municipal plant. Jas. B. Nelson, Engr., Baldwin Block, Indianapolis, Ind.

LAWRENCEBURG, IND.—The General Construction Co. is said to have been awarded the contract for erecting the proposed plant here, which will run about 3,000 120-c. p. arc lights and cost about $44,600.

RICHMOND, IND.—Jas. B. Nelson, Consulting Engr., Baldwin Block, Indianapolis, writes us that he has just started plans for the proposed plant here and it is too early to give full particulars as yet.

CADILLAC, MICH.—The Cummer Electric Light Co will, it is said, make extensive alterations to its plant. G. D. Westover, Supt.

GRAND RAPIDS, MICH.—Bids are asked until Sept. 1 for erecting a power house complete for the Grand Rapids Ry. Co. G. S. Johnson, Gen. Mgr.

MAYVILLE, MICH.—The proposition to issue $5,000 in bonds for erecting a plant was recently voted down at a special election. It is stated that the council will grant a franchise for a private plant.

WEST BRANCH, MICH.—Reports state that W. W. Vaughn will construct a dam and erect a plant to furnish power to manufacturing plants in the vicinity.

LITCHFIELD, ILL.—The council is said to have voted to put in a municipal plant next year.

SPIRIT LAKE, IA.—B. F. Stevens has, according to reports, offered to give the town the new plant, recently erected at a cost of about $30,000.

RIVER FALLS, WIS.—We are informed that the following bids were received Aug. 20 by Allen P. Weld, Cy. Clk., for erecting a plant complete: Bids for electric plant, W. H. Gray & Co., Minneapolis, $20,364; General Electric Co., $10,850; Burgess Electric Co., $11,280; Electric Mfg. Co. of Minneapolis, $10,325; Fort Wayne Electric Works, $9,577; W. S. Hewett, Minneapolis, for pine lumber in dam, $41.50 per M.; Sherwood, Sutherland & Co., pine lumber in dam, $33; William Porten, power house, $840; Electrical Supply Co., of Madison, Wis.; Wm. Burch, pole and wire line only, $4,100. The average bids on 30-ft. poles, set and fitted, $4.50; average price for wire in place, $0.25; average for 16-c. p. lamps installed, $3.50, concealed wiring; average for same, open cleat wiring, $2.50; average 1,000-volt transformers, installed, $31; average 5A-watt motors installed, $15.50. Original proposals not being entirely satisfactory, modifications were made and contracts let as follows: on part of trustees owning water power, to W. I. Gray, of Minneapolis, for entire water power plant, including dam, flume, steel penstock, 19-in. wheel, etc., $7,001; on part of city for electric light plant, to Fort Wayne Electric Works, for sum of $9,059.

HOUSTON, TEX.—The council has, according to reports, been petitioned to erect the municipal plant, for which $100,000 in bonds were recently voted.

NORMAN, OKLA. TER.—The council will soon receive bids for lighting the town, according to reports.

CHATHAM, N. B.—It is stated that plans are now being prepared for a plant to be erected in connection with the proposed new pumping station.

NEW COMPANIES.—California Power Co., Redlands, Cal.; $2,500,000; Henry Fisher, B. O. Johnson, F. P. Morrison.

International Light, Heat & Power Co, Wilmington, Del.; $500,000; G. B. Thatcher, Palmyra, N. J.; G. Ford, W. M. Patton, W. M. Pyle, Philadelphia, Pa.

Economic Light & Power Co., Chicago, Ill.; $10,000; E. C. Wetlen, D. T. Campbell, L. Spahn.

Ontario Light & Traction Co., Canandaigua, N. Y.; $100,000; J. H. Burgess, Elmira; J. H. Pardee, H. B. Ferguson.

Lincoln Gas & Electric Co., Lincoln, Neb.; $1,500,000; H. F. Rose, J. C. Vanpiper, S. H. Burnham.

Granite State Electrical Works, Lisbon, N. H.; $25,000; H. C. Libby, H. H. Atwood, A. I. Currier.

Kincaid Electrical Co., Colorado Springs, Colo.; $45,000; E. E. Baty, F. G. Armbuster, J. A. Kincaid.

Peekskill, Lighting Co., Peekskill, N. Y.; $500,000; B. B. Nostrand, Jr., H. L. Armstrong.

Irondale Water, Light & Power Co., Irondale, Ala.; $100,000; F. W. Turpin, N. H. Sewell, R. R. Zell.

BRIDGES.

HENNIKER, N. H.—The people of this town are said to have voted recently to erect a new steel bridge over the Contoocook River, to replace the one recently burned.

PITTSFIELD, MASS.—The board of public works will, it is said, advertise for bids shortly for erecting the new Linden St. iron bridge, according to plans prepared by Collins & Norton, 33 Lyman St., Springfield.

WESTERLY, R. I.—Bids are asked by the city clerk until Sept. 4 for painting the iron bridges over the Pawcatuck River at Broad St., and at Stillmanville.

ALBANY, N.Y.—E. H. Hooker, Deputy Supt. Pub. Wks., writes us that all bids, received Aug. 21, for erecting the Washington St. Bridge, in Utica, were rejected. No bids were received for erecting the Brainerd St. bridge in Whitesboro.

ANGELICA, N. Y.—Reports state that the contract for constructing a 172-ft. span bridge over the Genesee River, between this town and Belfast, has been let to the Horseheads Bridge Co., Horseheads, at $5,690.

NEW YORK, N. Y.—Bids are asked by the department of bridges, 21 Park Row, until Sept. 4, for furnishing a quantity of Canada or Maine spruce lumber for use on the New York and Brooklyn Bridge.

NEW YORK, N. Y.—Bids are asked by the department of parks, Arsenal, Central Park, until Sept. 6, for constructing a bridge on the Harlem River Branch of the N. Y., N. H. & H. R. R. at Pelham Parkway, Bronx Borough.

ROME, N. Y.—Bids are asked until Sept. 3 for erecting a 160 ft. single span steel bridge, with two 30-ft. approaches, over Fish Creek. F. A. Coleman, Cy. Engr.

SYRACUSE, N. Y.—It is stated that the council will be petitioned to construct a new bridge over the Erie Canal at Catharine St.

ALLEGHENY, PA.—Charles D. Moore, J. A. Meade, G. B. Cooper and others are said to be interested in the plan to construct a bridge over the Ohio River, from lower Allegheny to McKee's Rocks, over which a street railway line will be run.

CORAOPOLIS, PA.—The Pittsburg & Lake Erie R. R. is said to have let the contract for erecting a 750 ft., four-span steel bridge, over the Ohio River to Neville Island, to cost about $100,000, to the Shultz Bridge & Iron Co., McKee's Rocks. The spans will be 256 ft., 230 ft., and two of 132 ft. each.

MEDIA, PA.—The county commissioners are said to be considering plans for a bridge over Darby Creek, and one over Crum Creek, to cost about $50,000.

BUCKINGHAM, VA.—William Peile, County Engr., Buckingham C. H., writes us that the following bids were received Aug. 23 for constructing a 96-ft. steel bridge with a 12-ft. roadway, over Slate River, as advertised in Engineering News: Virginia Bridge & Iron Co., Roanoke, Va., $1,047 (accepted); Groton Bridge & Mfg. Co., Groton, N.Y., $1,075; Columbia Bridge Co., Pittsburg, Pa., $2,152.

ATTALLA, ALA.—It is stated that the contract for the substructure of the new bridge over Wills Creek, on the line of the Alabama Great Southern R. R. has been let to R. L. Wescott, 24 Reade Ave., Chattanooga, Tenn., at about $8,000.

CLEVELAND, O.—The board of public works has approved plans and granted a permit to the Cleveland, Cincinnati, Chicago & St. Louis Ry., to construct a 100-ft. one-arm steel rolling lift bridge over the Cuyahoga River, at the foot of South Water St., to cost about $100,000. C. E. Schaff, Gen. Mgr., Cincinnati; A. S. Ingalls, Asst. Dir. Supt.——The contract for repairing the substructure of the Winslow St. bridge is said to have been let to Beers & Doolittle at $5,924.——The city will, it is said, sell on Oct. 1, $100,000 in bonds for constructing the Middle Seneca St bridge.

TROY, O.—N. K. Staley, Cy. Clk., writes us that no bids were received Aug. 21 for the substructure for the canal bridge at Market St., and for constructing an arch over the race at that point.

ROCKVILLE, IND.—Bids are asked until Sept. 6 for recovering the wagon bridge across Big Raccoon Creek at Bridgeton and the McMuller Bridge, and until Sept. 7 for erecting five bridges and stone abutments in this county. S. A. Pike, County Auditor.

SOUTH BEND, IND.—Press reports state that the contract for the stone work for the new bridge over Joseph's River has been let to Thomas Bridges' Sons, Wabash, at about $24,000.

MANSFIELD, ILL.—We are informed that the contract for erecting a 72 × 14 ft. steel bridge on masonry piers, was let Aug. 25 to the New Castle Bridge Co., New Castle, Ind., at $1,489. M. S. Ketchum, Engr., Champaign.

VANDALIA, ILL.—The contract for constructing a new iron bridge east of this town is said to have been let to Merz Bros., Salem, at $3,632.

OROVILLE, CAL.—Bids are asked, according to reports, by the city clerk, until Sept. 8 for furnishing a quantity of lumber at the Car Hill Bridge over Butte Creek.

SACRAMENTO, CAL.—Bids are asked by the board of supervisors, until Sept. 6 for constructing a 200 ft. stone drawbridge over Georgiana Slough at Walnut Grove, also for constructing a two-span steel bridge about 324 ft. long with a trestle approach 195 ft. long, across the American River at Fair Oaks City. W. B. Hamilton, Clk.

SAN PEDRO, CAL.—Reports state that a special election will be held Sept. 10 to vote on the question of issuing $39,000 in bonds for bridge and wharf improvements. O. C. Abbott, Cy. Clk.

HALEY, IDAHO.—Bids are asked until Sept. 10 for constructing a bridge over Little Wood River in Blaine county. W. E. Heard, Clk.

MOSCOW, IDAHO.—Bids are asked until Sept. 10 for constructing a wagon bridge across the Palouse River near Kennedy ford. The bridge will have an 80-ft. span and a 30-ft. and a 20-ft. approach. Oscar Larson, Clk. Bd. County Comrs.

OTTAWA, ONT.—Bids are asked until Aug. 31 for constructing the piers and abutments for the Des Joachims interprovincial bridge over the main channel of the Ottawa River, near Upper Slide, Pontiac county, Que. Jos. R. Roy, Acting Secy. Dept. Pub. Wks.

BUILDINGS.

NEW AUBURN, ME.—Bids are asked by the building committee until Sept. 10 for erecting a school house. W. R. Miller, Arch., Lewiston.

TOGUS, ME.—Bids are asked until Sept. 1 for erecting an addition to the social club building at the eastern branch, N. H. for D. V. S. A. L. Smith, Treas.; S. H. Allen, Governor.

BOSTON, MASS.—Bids are asked until Sept. 15 for constructing a stone and brick building at the navy yard, covering about 2,900 sq. ft. of ground. M. T. Endicott, Ch. Bureau Yards and Docks, Navy Dept., Washington.

FOXBORO, MASS.—Bids are asked by the A. F. Bemis Hat Co. until Sept. 1 for erecting a frame school house. P. J. McEwen, Arch., 62 Beacon St., Boston; F. S. Lane, Secy. Bldg. Com.

FORT GREBLE, R. I.—Bids are asked until Sept. 6 for moving a temporary set of officers' quarters and converting same into an administration building. H. P. Young, Q. M., U. S. A., 209 Thames St., Newport.

BRIDGEPORT, CONN.—The library trustees are said to have let the contract for remodeling the present library building to Dowling & Bottomley, 7 Wall St., at about $28,000. G. W. & H. Longstaff, Archs., 403 Main St.

NEW YORK, N. Y.—Plans have been filed by Teichman & Potter Co., 115 Broadway, for a 7-story brick and stone apartment house, 60 × 88 × 90 ft., on 99th St., near West End Ave., to cost about $100,000; Geo. F. Pelham, Arch., 503 Fifth Ave. By Samuel Green, 306 Broadway, for four

5-story brick flat houses, 31 x 87 ft., at 316 to 322 East 113th St., to cost about $100,000; C. B. Meyers, Arch., 1 Union Square West. By H. & H. Sonn, 136 West 84th St., for ten 3-story brick dwellings, 20 x 53 x 55 ft., on Convent Ave., from 141st to 142d St., to cost about $80,000; Henry Fanchaux, Arch., Broadway, near 162d St. By the Church of the Archangel, for a 5-story brick church and rectory building, 56 x 51 and 23 ft., at St. Nicholas Ave., near 114th St., to cost about $50,000; Janes & Leo, Archs., 2585 Broadway. By Mrs. W. H. Bliss, for a 5-story dwelling, 43 x 48 ft. and a 6-story dwelling, 25 x 53 ft., at 6 and 8 East 65th St., to cost about $250,000; Hiss & Weekes, Archs., 111 Fifth Ave. By the City of New York, for a 4-story brick school house, on Ave. C, near 8th St., to cost about $110,000; C. B. J. Snyder, Arch., 59th St. and Park Ave. By Henry F. A. Wolf, 509 East 143d St., for four 5-story brick flats, 27 x 80 x 95 ft., at Beekman Ave. and 141st St., to cost about $80,000; Edw. Wenz, Arch., 1491 Third Ave. By S. D. Tomback, 225 East 110th St., for two 6-story brick tenements, 29 x 89 ft., at 305 to 309 East 109th St., to cost about $46,000; Nathan Langer, Arch., 220 Broadway. By J. J. Steinmann, owner and architect, 109 East 136th St., for two 5-story brick tenements, 25 x 102 ft., at Third Ave., near 174th St., to cost about $36,000. By G. E. Wilson, 195 Bowery, for a 7-story brick and stone apartment house, 101 x 95 ft., at 112th St. and Broadway, to cost about $250,000; Neville & Bagge, Archs., 217 West 125th St. By Geo. A. Heisler, 217 West 125th St., for an 8-story brick and stone mercantile building, 38 x 184 ft., at 5 East 17th and 6 East 18th Sts., to cost about $150,000; Edwin Wilbur, Arch., 217 West 125th St.

ROCHESTER, N. Y.—J. Foster Warner, Guaranty Bldg., is said to have prepared plans for a 2-story brick building, 132 x 300 ft., on Plymouth Ave., for the Mechanics' Institute, to cost about $150,000.

CAMDEN, N. J.—Thos. Stephen, Masonic Temple, is preparing plans for a large office building for the Camden Gas Light Co., and also for a large grain elevator in South Camden for Sibley & Son.

RED BANK, N. J.—O. E. Davis, Mayor, writes us that this city will erect a new school building, to cost about $60,000.

RIVERSIDE, N. J.—The contract for a new church and parish house has been let to Geo. S. Schele. Duhring, Okie & Ziegler, Archs., 1420 Chestnut St., Philadelphia, Pa.

ALLEGHENY, PA.—Plans have been prepared by W. A. Eurich, 413 Fourth Ave., Pittsburg, for a 12-story hotel building at North Ave. and Palo Alto Sts.

ALTOONA, PA.—Bids are asked until Sept. 3 for erecting a new school building in the fifth ward. Charles M. Robinson, Arch., 1910 West Chestnut Ave.

BELLEVUE, PA.—The contract for erecting the new residence for Henry G. Brown, Gen. Mgr. Wayne Iron Co., has been let to Henry Schenck, Lewis Block, Pittsburg, at about $65,000. This is exclusive of heating, plumbing, etc., which is estimated to cost about $35,000 more. Peabody & Stearns, Archs., 53 State St., Boston.

DARBY, PA.—Keen & Mead, 1420 Chestnut St., Philadelphia, have prepared plans for an addition to the plant of Fels & Co.

NEW FLORENCE, PA.—We are informed that the contract for erecting the new 2-story stone residence, 60 x 60 ft. for Jas. R. Mellon, 400 N. Negley Ave., Pittsburg, has been let to Geo. Mowry, of Derry Station. F. Sauer, Arch., Hamilton Block, Pittsburg.

PITTSBURG, PA.—Charles H. Bradley, Jr., 400 Rebecca St., is having plans prepared by Rutan & Russell, 1011 Tradesmens Bldg., for a residence on Morewood Ave., near Forbes St., to cost about $30,000.——Alden & Harlow, 323 Fourth Ave., are preparing plans for a residence on Perryville Ave. for George B. Hill, 323 Fourth Ave., to cost about $25,000.——F. C. Sauer, Hamilton Bldg., has prepared plans for two 3-story brick apartment houses at Bates St. and Oakland Ave., for John Dimling, to cost about $50,000. The general contract has been let to H. A. Kunze.

WILMINGTON, DEL.—It is stated that Wm. J. Brown, 413 Chipley St., will erect a new building for the Delaware Hospital, to cost about $26,700.

WASHINGTON, D. C.—Bids are asked until Aug. 31 for constructing a stable at the Soldiers' Home; Capt. Chas. W. Taylor, 9th U. S. Cavalry, Secy.——The contract for erecting the new Carnegie library building has been let to Richardson & Burgess, 613 14th St., N. W., at $273,000, with $4,000 added for Milford pink granite in basement. Bernard R. Green, Supt. of Construction.

WASHINGTON, D. C.—Bids are asked until Sept. 22 by the district commissioners for erecting a manual training school at Rhode Island Ave. and Seventh St., N. W.

NORFOLK, VA.—Press reports state that the plant of the Henry Walk Co. was damaged by fire recently to the extent of about $50,000.

ROANOKE, VA.—Rev. J. W. Lynch has filed plans for a brick church building, 52 x 138 ft., on North Jefferson St., to cost about $60,000.

MACON, GA.—Bids are asked by the board of county commissioners until Sept. 4 for making sanitary improvements in the courthouse. S. C. Davis, Clk.; P. E. Dennis, Arch., 568 Cherry St.

JUNO, FLA.—Reports state that the county commissioners are considering the question of issuing $150,000 in bonds for erecting a new courthouse and for various other county improvements.

NATCHEZ, MISS.—Bids are asked until Sept. 6 for erecting a new schoolhouse. Wm. G. Benbrook, Mayor; Thos. R. Quartermann, Cy. Clk.

WESTVILLE, MISS.—Bids are asked, according to reports by the board of county commissioners until Sept. 1 for a new court house, to cost about $25,000, to be erected at Edna.

CROWLEY, LA.—Bids are asked until Sept. 4 for erecting a new town hall and market building, to cost about $20,000. W. P. Campbell, Mayor.

JACKSON, TENN.—We are informed that the proposed issue of bonds for erecting a new city hall building will in all probability be held over until next year. F. H. Hartmus, Jr., Treas.

LOUISVILLE, KY.—The council is said to have decided to submit the question of issuing $200,000 in bonds for erecting a new city hall building to the people at the November election.

AKRON, O.—Bids are asked by the board of education, until Sept. 18, for erecting a 3-story brick school house, 76 x 146 ft., to cost about $35,000; F. O. Wearv, Arch., Savings Bank Bldg.——The city hall, Columbia Hall and several other buildings were recently destroyed by dynamite; loss, about $100,000.——The elevator of the American Cereal Co., Mill and Howard Sts., was recently destroyed by fire, according to reports; loss, about $75,000.

ATHENS, O.—The following bids were received Aug 16 by John N. Hayman, Pres. Bd. Trustees, for erecting two buildings at the Ohio State Hospital, (1) being for amusement hall and (2) for infirmary building: Henry O'Bleness, (1) $14,100, (2) $11,554; Geo. W. Tousley, (1) $14,940, (2) $10,998; J. T. Kerruish, Hollywood Ave., Toledo, (1) $14,764, (2) $11,202.

COLUMBUS, O.—C. A. Stribling, 85 North High St., is said to have prepared plans for a 9-story brick apartment house, 46 x 184 ft., at Broad St. and Grant Ave., to cost about $150,000, for Dr. William Dunlap and others; also for a 9-story office building, at High and Spring Sts., for the Merchants' & Mechanics' National Bank, to cost about $75,000. Work will start at once.——The same architect has prepared plans for a 3-story brick apartment house, 81 x 66 ft., at Town St. and Ide Terrace, for Harvey Cockell, and also for a 4-story brick business block, 62 x 56 ft., on East Long St.

GALLIPOLIS, O.—Bids are asked by J. W. Yost, Wheeler Bldg., Columbus, until Sept. 25 for erecting an administration building, a hospital building and a cottage at the Ohio Hospital for Epileptics. H. C. Rutter, Secy. Bd. Trustees.

LORAIN, O.—The council is said to have voted to erect a new city hall, to cost about $50,000, and will submit the question of issuing bonds to the people at a special election.

VANDALIA, O.—Bids are asked until Sept. 1 for erecting a brick school house at National Pike and Old Troy Road. Geo. O. Demmitt, Clk.

MUNCIE, IND.—It is stated that the women's societies of this city will erect a new hospital building, to cost about $100,000.

MARQUETTE, MICH.—The trustees of the Peter White memorial library will, it is said, erect a new building on Front St.

SPARTA, MICH.—Bids are asked by the board of education until Sept. 1 for erecting a new school house. Sidney J. Osgood, Arch., Widdicomb Block, Grand Rapids.

BLOOMINGTON, ILL.—Bids are asked by the building committee of the county supervisors, until Sept. 4, for rebuilding the courthouse, except heating, plumbing, etc. W. C. Jones, Chn.; John Reed, Secy.

ELGIN, ILL.—The following bids are said to have been received Aug. 20, by James K. Taylor, Supv. Arch., Treasury Dept., Washington, D. C., for erecting the U. S. building here: H. W. Schlueter, Chicago, Ill., $55,000, 14 months; Congress Construction Co., Masonic Temple, Chicago, $52,000, 14 months; Hennessee, Bros. & Evans Co., Chicago, $51,500, 12 months; M. Geager & Son, Danville, $49,356, 380 working days; Marckhoff Bros., Elgin, $63,425, 12 months; Campbell Building Co., Chicago, $57,200, 14 months; Wm. Mayor Co., Chicago, $59,952, 14 months; Forster & Smith, Minneapolis, Minn., $52,990, 14 months; Angus & Gindele Co., Chicago, $58,750, 13 months; Frank J. Melbourne, Canton, O., $72,742, 14 months; Smith & Wilkening, Elgin, $64,700, 14 months; Chas. W. Gindele Co., Chicago, $59,760, 14 months.

APPLETON, WIS.—We are informed that no definite plans have been prepared for the new 2-story brick armory building, 80 x 120 ft., to cost about $10,000, for the Appleton Light Infantry Association. W. H. Zuehlke, Ures.

DUBUQUE, IA.—The council is said to have received an offer of $50,000 for erecting a public library building.

ST. CLOUD, MINN.—The following bids were received Aug. 21, according to reports, by Jas. K. Taylor, Supv. Arch., Treasury Dept., Washington, D. C., for erecting the new post office building here: McLeod & Smith, Duluth, $32,380, 10 months; Carl Kropp, St. Cloud, $32,105, 13 months; Forster & Smith, Minneapolis, $31,500, 12 months; Butler Ryan Co., St. Paul, $28,975, 12 months; Hennessy & Co., St. Paul, $31,797, 1 year; Lumis D. Campbell, Duluth, $34,818, 12 months; Congress Construction Co., Chicago, Ill., $27,000, 12 months; Leck & Prince, Minneapolis, $32,375, 12 months; H. W. Leighton Co., Minneapolis, $38,186, 1 year; J. W. Miller, St. Paul, $35,994, 250 working days; Newmans & Hay, St. Paul, $31,550, 12 months; Henry W. Schluetes, Chicago, Ill., $35,437, 12 months.

ST. PAUL, MINN.—Reports state that the county commissioners favor the plans of the Pauley Jail Co., St. Louis, Mo., for the new 4-story jail building, to be erected on Fifth and Wabasha Sts., to cost about $100,000.

WASECA, MINN.—We are informed that the contract for installing a heating system in the county jail has been let to the New Prague Mfg. Co., New Prague, at $545. P. J. McLoove, County Auditor.

OMAHA, NEB.—The board of education has filed plans for a 3-story brick high school building at 20th St. and Capitol Ave., to cost about $150,000.

CHEYENNE, WYO.—Bids are asked until Sept. 12 for erecting the proposed Carnegie library building. R. C. Morris, Secy. Bldg. Com.

CLAYTON, MO.—It is stated that the people of this county may soon vote on the question of issuing $300,000 in bonds for erecting a new courthouse.

ST. JOSEPH, MO.—Bids are asked until Sept. 1 for erecting the proposed library building. E. J. Eckel, Arch.

OKLAHOMA CITY, OKLA. TER.—Reports state that the Masons are considering the question of erecting a Masonic Temple, to cost about $50,000.

MARBLE, COLO.—Bids are asked until Sept. 1 for erecting a town jail building. J. H. Hoffman, Mayor; F. W. Reynolds, Town Clk.

SUMPTER, ORE.—D. Wilson will, it it said, erect a new hotel building here, to cost about $50,000.

RIVERSIDE, CAL.—James W. Johnson, Cy. Engr., writes us that $40,000 in bonds have been voted, but not sold, for erecting a new schoolhouse. Plans have not yet been completed. Bids may be called for about Sept. 1.

CARLETON, N. B.—Bids are asked until August 31 for erecting a public school building here. E. Manning, Secy. Bd. School Trustees; H. H. Mott, Arch., 61 Prince William St., St. Johns, N. B., should be addressed.

GRAND FORKS, N. B.—Press reports state that the town of Columbia, near here, was practically destroyed by fire recently; loss, about $100,000.

WATER-WORKS.

HOLLIS, N. H.—The question of building small gravity works is being considered.

BEVERLY, MASS.—Albert Porter is reported as making surveys of Longham meadow for improving the source of the water supplies for this place and Salem.

HOLYOKE, MASS.—Bids are asked until Sept. 10 for furnishing 1,000 tons of cast-iron water pipe, as stated in our advertising columns. J. J. Sullivan, Chn. Com.

LOWELL, MASS.—Patrick Conlan, of this city, has been awarded the contract at $1,415 for the new building at the driven-well system, that for two boilers, smokestack, etc., being let to Scannell & Wholey at $2,300.

SCITUATE, MASS.—This place has voted to guarantee $2,500 a year to the water company for ten years for a water supply. The company is to furnish 70 hydrants, and will install a duplicate set of pumping machinery and a new standpipe to be 200 ft. high. Percy M. Blake, Engr., Scituate Water Co.

GROTON, CONN.—The question of the municipal ownership of the works is being considered. The charter and franchise of the Groton Water Co. are held by a committee for the benefit of the fire district. The proposed new supply will be secured from Great Brook; estimated cost $100,000. Address C. E. White.

HARTFORD, CONN.—The water commissioners have decided to replace 5,400 ft. of 6-in. main with 8-in.

PLAINVILLE, CONN.—The question of building a standpipe about 100 ft. high is being considered. Address Selectmen Belden and Prior.

ATHENS, N. Y.—The question of works is being considered.

MORAVIA, N. Y.—This place is reported to have voted against issuing bonds for works.

NEW YORK, N. Y.—Bids are asked until Sept. 4 for a water tower extension to the Metropolitan Hospital on Blackwell's Island. J. W. Keller, Pres. Dept. Pub. Charities, foot East 26th St.

PEEKSKILL, N. Y.—This city has voted against the proposition to issue $100,000 in bonds for increasing the water supply.

YONKERS, N. Y.—Bids are asked until Sept. 17 for lowering the suction mains, building foundations and a water-tight pump pit and for enlarging the engine house, etc., as stated in our advertising columns. J. C. Shotts, Pres. Bd. Water Comrs.; A. W. Kingsbury, Clk.

ANGLESEA, N. J.—It is stated that the council will soon ask for bids for furnishing a water supply and for building works.

BRIDGETON, N. J.—Bids are asked until Sept. 11 for furnishing and installing a horizontal triple expansion condensing, direct-acting pumping engine, upon foundations to be built by the city. J. H. Powell, Chn. Com.

DOVER, N. J.—The Dover Plains Water Co. has been incorporated with a capital of $6,000 by John R. Thompson, of Amenia, N. J.; J. A. Hanna, of Dover Plains, and others to supply water to Dover Plains and Dover.

DOVER, N. J.—The water commissioners have submitted their report for an improved water supply. They recommend that water be taken from Green Pond at a cost of $230,000. Driven wells are recommended as the only alternative should Green Pond not be availed of. The cost of duplicating the works of the Dover Water Co. is estimated at $70,358. C. C. Vermeule, Consult. Engr., 203 Broadway, New York; L. C. Blerwirth, J. W. Baker and C. R. Mulligan compose the committee. D. R. Hummer, Town Clk.

RED BANK, N. J.—It is proposed to extend the water mains at a cost of $15,000. O. E. Davis, Mayor.

TRENTON, N. J.—The water commissioners are reported as planning a second waste weir.

BRADDOCK, PA.—This place has voted to issue $75,000 in bonds for improving the works, streets, etc., according to reports.

JOHNSTOWN, PA.—The Independent Water Co., through local and Boydtown parties, will soon apply for a charter to furnish water to this city, Springfield and Boydtown. A reservoir will be built and 16 miles of mains laid. Capital stock, $200,000.——The proposed reservoir on Quemakomix Creek for the Manufacturers' Water Co. will cost about $1,000,000. John Birkenbine, Engr., Franklin Institute, Philadelphia.

PHILADELPHIA, PA.—Harmer & Quinn, Fidelity-Mutual Bldg., have been awarded the contract for improving the pumping station at the Queens Lane station.

TOWANDA, PA.—Reports state that the machinery at the pumping station was partly destroyed by fire recently.

WILLIAMSBURG, PA.—The council has passed an ordinance for municipal works. The question will probably soon be voted upon.

WASHINGTON, D. C.—Bids are asked until Sept. 17 for furnishing 5,760 ft. of 48-in. cast-iron water pipe, as stated in our advertising columns. Lieut. Col. A. M. Miller, U. S. Engr., Washington Aqueduct.——M. J. Drummond & Co., New York, have been awarded the contract at $5,930 for the pipe for the St. Elizabeth government asylum, that for the laying being let to the Burdel Water Co., Philadelphia, at $1,645.

LURAY, VA.—Bids are asked until Sept. 12 for laying water pipe and building a reservoir, as stated in our advertising columns. The town will furnish the hydrants, pipe, valves, etc. N. Wilson Davis, Consult. Engr.; T. J. Berrey, Secy. Com.

RICHMOND, VA.—Prices are wanted at once for furnishing hydrants, cast-iron water pipe, castings, chemical fire engines, etc., for the Sydnor Pump & Well Co., at Richmond, which proposes to build works for small towns.

SMITHFIELD, VA.—Bids are asked until Sept. 10 for furnishing the materials and for constructing works for the Smithfield Water Co., as described in our advertising columns. Hite-Smith & Minshall, Engrs., Norfolk, Va.; J. D. Jordan, Secy.

MONTGOMERY, W. VA.—The Montgomery Water Co. will commence construction on the proposed works Sept. 1. E. W. McCormick, Pres.

PIEDMONT, W. VA.—Fred. Minshall, Norfolk, Va., is reported as making surveys for a new gravity main, and also for a pumping station.

ST. MARYS, W. VA.—This place has voted to issue $20,000 in bonds for works, according to reports.

RALEIGH, N. C.—This city will vote at the next election on the question of city ownership of the works.

WINSTON, N. C.—The council is considering a proposition from the Sydnor Pump & Well Co., of Richmond, Va., for putting in wells for a water supply.

ATLANTA, GA.—Peter Milne, of Brooklyn, N. Y., has submitted his report on the pumping machinery, and has recommended that new machinery be added. H. H. Cabaniss, Chn. Citizens' Com.——The water commissioners have been authorized to ask for bids for a new pump of 15,000,000 gallons, to be placed in the Hemphill Station, and also for new water pipe. It is also proposed to have additional filters for 4,000,000 gallons. Geo. W. Harrison, Pres.; R. M. Clayton, Cy. Engr.

SHELLMAN, GA.—This place has voted to issue $3,000 in bonds for an artesian well and water-works. Up to Aug. 25 no engineer had been engaged or contracts let. W. T. Jay, Mayor.

MONTGOMERY, ALA.—Bids are asked until Sept. 3 for furnishing 4,000 ft. of 12-in. pipe, 75 lbs. to the ft., 2,000 ft. of 6-in. pipe, 31 lbs., 1,000 ft. of 4-in. pipe, 22 lbs., tees, plugs, etc., and also for furnishing and setting. R. H. Sommerville, Treas.

SHEFFIELD, ALA.—Bids are asked until Sept. 3 for building new works, to be paid in first mortgage water bonds at par. Population, 3,000. R. J. Thurmond, Jr., Mayor and Chn. Com.

CLARKSDALE, MISS.—Bids are asked until Sept. 18 for furnishing the material and for building works and sewerage system, and for the purchase of $37,000 of bonds

for the improvements and for buying the electric plant. F. H. Porter, Engr., Columbia Bldg., Louisville, Ky.; I. Culley, Clk. pro tem.; Walter Clark, Mayor.

BARBERTON, O.—Bids are asked until Sept. 10 for extending and improving the works and mains in 13 streets. W. S. Mitchell, Clk. Water-Works Trustees; J. McNamara, Mayor. The report in our issue last week under Ashtabula, O., should have been credited to Geneva, that place having voted on the question of issuing $75,000 in bonds for works. J. B. Strawn, Engr., Salem, O.

CANTON, O.—Judge Clark, of the U. S. Circuit Court, at Cleveland, has refused to grant an injunction restraining the city from securing a water supply from Meyers Lake.

CINCINNATI, O.—Bids are asked until Oct. 2 for furnishing the materials and for constructing a tunnel extension and shafts for supplying water to the Western pumping station, as stated in our advertising columns. C. G. Roth, Clk. Comrs. Water-Works.

DAYTON, O.—Bids were asked until Aug. 29 for erecting a new engine room and pumping station. Burns & Pretzinger, Archs.; C. E. Rowe, Secy. Trustees.

MASSILLON, O.—The council has offered to buy the works of the Massillon Water Supply Co. for $200,000. The question will be submitted to a board of arbitration. L. E. Chapin, Consult. Engr., Canton, O.; address Messrs. Kouth, Weller and Johns of the water-works trustees.

PRAIRIE DEPOT, O.—This place is reported to have voted to issue $15,000 in bonds for works.

BATTLE CREEK, MICH.—The council has voted to appropriate $1,000 for sinking experimental wells at the pumping station at Lage Goguac for an increased water supply. Address Alderman F. E. Halladay and City Engineer Van Valin.

LA SALLE, ILL.—Reports state that the council has voted to expend $60,000 on the improvement of the works. New wells will be driven, as the water now obtained from springs east of the city is said to become polluted at times when the Illinois River is high. A standpipe will be erected near St. Mary's Hospital, as sufficient pressure cannot be obtained to force the water to the portion of town on the hill in case of fire.

LEE, ILL.—The Lee Water Supply Co. has been incorporated with a capital of $500 by John A. Lynch, Sardius Vesburg and M. P. Harris.

NORTH CHICAGO, ILL.—Bids are asked until Sept. 3 for furnishing the materials and for constructing works, to include a compound duplex pumping engine of 1,000,000 gallons, a boiler, tower, mains, valves, hydrants, etc. Wm. B. Ewing, Engr., 1003 Chamber of Commerce Bldg., Chicago.; C. W. Vedder, Pres.

GRAND RAPIDS, WIS.—The council is reported as in favor of the immediate construction of city works.

MONDOVI, WIS.—Bids will be asked about Sept. 8 for furnishing the materials and for constructing works, to consist of a pump, a gasoline engine, a 150,000-gallon reservoir, about four miles 6 and 8-in. pipe, 30 hydrants, etc. Pop., 1,300. A. M. Patitz, Engr., Milwaukee, Wis.; J. D. Pace, in charge; C. W. Gilman, Mayor.

RACINE, WIS.—Reports state as follows: At a meeting held Aug. 21 between a committee composed of business men appointed by Mayor Higgins and officials of the Racine Water Co. to consider propositions from the company for the municipal ownership of the system the company, whose franchise has 11 years to run, offered to give the city a rebate on hydrant rentals of 10% each year in return for an extension of the franchise 25 years. The company also agrees to give 20% of the hydrant rental during that term. It is further understood that if this proposition is accepted by the city the company will drop the two suits against the city of the sum of $180,000. The annual hydrant rental is now $17,000.

SPRING GREEN, WIS.—Bids are asked until Sept. 4 for furnishing the materials and for sinking a 20-ft. well not less than 30 ft. for a water supply. W. M. Hathaway, Village Clk.

OTTUMWA, IA.—Hiram Phillips, Lincoln Trust Bldg., St. Louis, Mo., has been retained as consulting engineer on the proposed works.

REINBECK, IA.—Reports state that the wooden water mains are to be replaced with cast-iron pipe.

TABOR, IA.—A well to be about 300 ft. deep will probably be driven this season. Further work for a water supply will probably be done next year. Gasoline engines and compressed air tanks will probably be wanted. Pop., 1,000. S. C. McKitrock, Mayor.

CASS LAKE, MINN.—Herber Hartley, of the Cass Land Co., is reported to have been granted $2,000 by the city to aid in the construction of works.

NEW PAYNESVILLE, MINN.—Bids are asked by the village recorder until Sept. 3 for a new boiler for the works.

SOLWAY, MINN.—Bids are asked until Sept. 10 for constructing an 18-ft. brick cistern, 18 ft. deep, a well 70 ft. deep, a frame engine house, etc., according to reports. J. M. Near, Village Recdr.

LEAVENWORTH, KAN.—The following bids for works were received by Capt. D. E. McCarthy, Constructing Q. M., U. S. A., Aug. 17: Ruemmeli Mfg. Co., St. Louis, Mo., $5,700; W. H. Rhodes, Fort Crook, Neb., $5,980; Christian States, Topeka, Kan., $6,500; Jas. Foley, Leavenworth, Kan., $6,986.

CRAIG, NEB.—This place voted Aug. 21 in favor of issuing $3,600 of 5% 20-year bonds for the proposed works to cost $5,000. There will be a 16-ft. irrigation windmill, 4 or 6 HP. gasoline engine, a wooden tank, 4,300 ft. of 4 and 6-in. pipe, hydrants, etc. S. M. Bixley, Com.

FORT CROOK, NEB.—Col. F. H. Hathaway, Q. M.'s Dept., U. S. A., has let the contract at $500 to Lorin E. Nebergall, of Omaha, for sinking an artesian well and guaranteeing a water supply of 150,000 gallons.

WISNER, NEB.—The question of city works is being considered.

JAMESTOWN, N. DAK.—This place voted Aug. 20 in favor of issuing $10,000 in bonds for improving the works. Up to Aug. 24 no plans had been adopted. Geo. C. Eager, Cy. Audr.

ST. LOUIS, MO.—The following statement has been made by P. H. Flynn, Brooklyn, N. Y., who was recently reported to have the contract for furnishing this city with a new water supply and for constructing the works: "It is not true that any contract has been let for the proposed new water-works. It is a fact, however, that the city is likely to do something at once. St. Louis is planning a world's fair for 1903, and it is the present intention to get the new works installed before the fair is opened. The city at present is paying about $1,400,000 a year for water, and the supply is inadequate in view of the growth of the city. The people are beginning to realize that a new and adequate supply at a cost of $25,000,000 would be cheaper for them in the long run than the present arrangement. Doubtless the fact that people associated with me own the nearest available supply gave rise to the rumor that we had secured the contract. I have been in favor of open bidding for the contract from the start, because I have no doubt I can secure the contract. The city authorities, if they so desire, can execute a contract without advertising for bids. Before the contract is let it is likely that special legislation will have to be passed by the legislature, and the necessary bill is likely to be introduced the coming winter. The only thing that would make it impossible to get the water-works in operation by the middle of 1903 would be the limitations of the steel makers. It would take thousands of tons of steel pipe. The nearest water supply is the Meramec River, 80 miles from St. Louis. It has a fall of about one foot to the mile and would give an adequate supply for all time. Probably two 72-in. steel conduits would be laid the entire 80 miles. It would require a force of 2,000 laborers and engineers, and there would be a good many subcontracts. The whole job could be completed in time for the world's fair if the steel men could handle their end of it." Secretary Holland, of the Council Ways and Means Com., may be addressed.

AUGUSTA, ARK.—It is stated that arrangements will be made at once for constructing works, the bonds having been sold. Owen Ford, Consult. Engr., 710 Security Bldg., St. Louis, Mo.

FORT WORTH, TEX.—Alderman J. F. Henderson is urging the council to pass a resolution authorizing the committee and City Engineer Hawley to investigate the question of a water meter system.

DENVER, COLO.—Local papers state that bids were wanted until Aug. 16 by the Denver Union Water Co. for the construction of the company's dam at Lake Cheesman on the south fork of the South Platte River. The company has already started the work, which will take two years to complete, and has built part of the foundation and the tunnels. The specifications call for a dam to be 220 ft. high, 170 ft. thick at the base and 20 ft. thick at the top. It is to be of solid granite masonry laid in cement, and when completed the reservoir will have a capacity of about 30,000,000,000 gallons. The reservoir will be 200 ft. deep.

SPOKANE, WASH.—Mayor J. M. Comstock is urging the council to take up the matter of investigating the cost of a water meter system.

FORT STEVENS, ORE.—Bids are asked until Sept. 5 for constructing nine cisterns at Fort Stevens. Thos. Downs, Q. M., U. S. A., Astoria, Ore.

COLTON, CAL.—The North End Water Co. has been incorporated with a capital stock of $3,000 by W. Purdum, A. S. Fox and D. Johnston.

LOS ANGELES, CAL.—Local papers state that the council has directed the city clerk to ask for a new pipe to cost about $8,000.——The question of a better water supply for the district about Vernon is being considered. ——The East Side Lighting Co. has submitted a proposition to furnish power for a pumping plant.

REDWOOD CITY, CAL.—Bids are asked until Sept. 4 for furnishing the materials and for laying 4 to 8-in. water pipe; bond, $500. D. R. Stafford, Clk.

SAN DIEGO, CAL.—The committee is reported as in favor of municipal works. E. S. Babcock, Pres. Southern California Mountain Water Co., estimates that he can build works for about $600,000, to be purchased by the city by the issuance of bonds.

SALT LAKE CITY, UTAH.—Plans are reported as being prepared for utilizing the Utah Lake reservoir for a water supply; estimated cost, about $200,000.

HARRISON, IDAHO.—H. Orchard, Mgr. Spokane Galvanized Wire Pipe Co., Spokane, Wash., is reported to have applied for a franchise for works, to include a 100,000-gallon reservoir, etc.

WEISER, IDAHO.—An election will be held Sept. 18 to vote on the question of issuing $45,000 in bonds for works, etc.

OTTAWA, ONT.—City Engineer Galt expects to have a new 8,000,000-gallon pumping engine installed by May. The pressure throughout the mains will be increased, and where the mains will not withstand the increased pressure new, as well as larger, ones will be put in.

TORONTO, ONT.—The city engineer is reported as in favor of the purchase of a new 10,000,000-gallon pumping engine, etc.

WINNIPEG, MAN.—Press reports state that Jas. T. Fanning, of Minneapolis, Minn., has been engaged to report on the condition of the new works, recently built at a cost of $150,000. It is said that the foundations of the pumping station have been undermined by quicksand, and that the chimneys, 125 ft. high, and the buildings are sinking. Col. H. N. Ruttan, Cy. Engr.; Alderman Ross, Chn. Com.

ROSSLAND, B. C.—Bids are asked until Sept. 4 for the purchase of $10,000 of bonds for extending the mains. The city will do the work by day labor. W. F. Van Buskirk, Cy. Engr.; W. M. Queen, Cy. Clk.

SEWERAGE.

BOSTON, MASS.—Bids are asked by the board of park commissioners, 64 Pemberton Square, until Aug. 30, for building a drain between the Arnold Arboretum and Woodman St.

BOSTON, MASS.—Bids are asked by the board of metropolitan sewerage commissioners until Sept. 17, for constructing a sewer in Roxbury and West Roxbury, as stated in our advertising columns. Wm. M. Brown, Ch. Engr.

PITTSFIELD, MASS.—It is stated that the council has purchased the Abbey Lodge Estate from Col. W. Cutting, and will use the same for sewage filtration beds.

SPRINGFIELD, MASS.—Charles M. Slocum, Cy. Engr., writes us that the proposed brick sewer in Nursey St. will probably be built by day labor.

CENTRAL FALLS, R. I.—Wm. F. Keene, Cy. Engr., writes us that this city will construct about 200 ft. of 18 or 21-in., 600 ft. of 12-in., and 1,700 ft. of 8-in. pipe sewers in Rand St. and Lonsdale Ave. and Hendricks St., to cost about $6,700. The work will be done by the board of public works.

NEW BRITAIN, CONN.—W. W. Cadwell, Cy. Engr., writes us that he is working on plans for a separate sewer system, for the construction of which the city will have to obtain special legislation this winter.

ROCHESTER, N. Y.—The council has decided to construct a sewer in Ulrich St.; Theodore S. Pulver, Cy. Clk.

ROME, N. Y.—The council has granted the petition to construct a sewer in East Bloomfield St., according to reports.

WATERFORD, N. Y.—The following bids are said to have been received Aug. 15 by John Flynn, Jr., Engr., for constructing the new Eighth Ward sewer: William Stanton, Cohoes, $7,235; Albert M. Banker, Gloversville, $11,401; John B. Doyle, Cohoes, $7,197; Monney & Lillis, Troy, $7,648; Harrington & Besch, Troy, $8,923; Eveline & Denello, Troy, $6,879.

ELIZABETH, N. J.—The council is said to have received the following bids for sewer work: For constructing the Henry St. trunk sewer, Patrick Faughnan, $18,662; Matthew Wade, 332 South St., $16,652; Antonio Costa, $25,720; Harrison Construction Co., $17,838; J. H. Lochheim, $23,788; B. L. Sweatman & Son, $18,174; Patrick McKeon, $21,275; Wm. J. McCloud, $20,310; Thomas Viscount submitted the lowest bid at $575 for constructing the sewer in Olive St., and Thomas Vincent submitted the lowest bid at $3,345, for constructing the sewer in Rosehill place.

MOORESTOWN, N. J.—Reports state that the council will soon ask for bids for constructing the proposed system, to cost about $40,000.

CORAOPOLIS, PA.—The council is said to have let the contract for constructing sewers in certain streets to R. L. Morris, of Wilkinsburg, at about $6,500.

PHILADELPHIA, PA.—Bids are asked until Sept. 3 for constructing branch sewers. Wm. C. Haddock, Dir. Dept.

PITTSBURG, PA.—Bids are asked, according to reports, until Sept. 5 for constructing about three miles of pipe and one mile of brick sewers in the Homewood district. Geo. W. Wilson, Dir. Pub. Wks.

ANNAPOLIS, MD.—The contract for constructing sewers here has been let to the A. L. Paterson Co., Macon, Ga., at $5,666, according to reports.

GAINESVILLE, GA.—This town is said to be considering the question of constructing a system.

VALDOSTA, GA.—It is stated that bids will be received shortly by the council for constructing a system to cost about $25,000.

BIRMINGHAM, ALA.—The council has, according to reports, let the contract for constructing sewers from Ave. K and 14th St. to 14th St. South, to cost about $4,000, to Donelson & Colvin.

FLORENCE, ALA.—Neely & Smith, 122 East Seventh St., Chattanooga, Tenn., are said to have received the contract for constructing a system in this city, to cost about $50,000.

CANTON, O.—We are informed that at a special election, held Aug. 25, the people voted against the proposed issue of $75,000 in bonds for sewering Shriver's Run. Phil. H. Weber, Cy. Engr.

CLEVELAND, O.—The council has sold $171,000 in bonds for constructing sewers in West Cleveland.

CLEVELAND, O.—Bids are asked until Sept. 19 for constructing a sewer in Taylor St. John Vandewelde, Deputy Dir. Pub. Wks.

CLEVELAND, O.—Bids are asked until Sept. 7 for constructing a sewer in Bell Ave. Wm. E. Sage, Secy. Bd.

HOLLAND, MICH.—Bids are asked until Sept. 3 for constructing about 1,200 ft. of 20-in., 1,633 ft. of 18-in., 2,200 ft. of 15-in., and 1,320 ft. of 12-in. pipe sewers, 40 manholes, 175 house junctions and two bacteria tanks. Wm. O. Van Eyck, Clk. Bd. Pub. Wks.

MIDLAND, MICH.—The people of this city are considering the question of issuing $4,000 in bonds for constructing sewers.

WAUWATOSA, WIS.—Plans are wanted by the sewerage committee until Sept. 10 for a method of sewage disposal, as stated in our advertising columns; estimated cost, about $30,000. S. J. Decker, Chn.

MUSCATINE, IA.—The council has passed a resolution to construct a sewer in Sub-sewage District No. 8.

POCAHONTAS, IA.—Press reports state that a system is to be constructed here.

OMAHA, NEB.—Bids are asked until Aug. 31 for constructing a pipe sewer in Spruce St. Andrew Rosewater, Chn. Bd. Pub. Wks.; Wm. Coburn, Secy.

TACOMA, WASH.—The commissioner of public works is said to have let the contract for constructing sewers in district 109 to E. M. Moore, at $2,929.

LOS ANGELES, CAL.—The council has, according to reports, passed an ordinance of intention to construct an 8-in. sewer in Patton St. J. H. Dean, Supt. Streets.

OAKLAND, CAL.—The contract for constructing a concrete culvert over Sansal Creek at East 27th St., is said to have been let to E. B. Stone, at $4,960.

CHATHAM, N. B.—The council has engaged F. C. Coffin, 53 State St., Boston, Mass., to prepare plans for the proposed sewerage and water systems.

GARBAGE DISPOSAL—STREET CLEANING

NEW HAVEN, CONN.—Bids are asked until Sept. 3 for furnishing a steel sprinkling wagon and two sprinkling carts with wide tires, with a capacity of 750 gallons each. C. W. Kelley, Cy. Engr.

NEW YORK, N. Y.—Plans for a crematory to take the place of the Barren Island garbage plants have been submitted to the Board of Estimate. Commissioner Percy E. Nagle has asked for an appropriation of $250,000. This amount will provide for one crematory, but will not cover the cost of the land. This is the first move taken to comply with the law passed during the last session of the legislature abolishing the Barren Island plants. Bids will probably soon be asked. An effort is being made by the Sanitary Utilization Co., which has the contract for disposing of the Manhattan garbage, to prove that the Barren Island bill was illegal. This company has contracts with the city which hold over until next August, and one until January. Before putting in any suit for damages this company decided to test the law.

OIL CITY, PA.—Bids are asked until Sept. 10 for furnishing and installing a garbage crematory of 25 tons a day, according to reports. S. W. Barnhart, Controller.

YORK, PA.—The council has decided to issue $60,000 in bonds for a crematory, road roller, fire hose, etc. Address the Mayor.

COLUMBIA, S. C.—The board of health is reported to have asked the council for an appropriation to establish a crematory.

CANTON, O.—This city voted Aug. 25 to issue $20,000 in bonds for a garbage disposal plant. The proposition for bonds for a sewer in Shrivers Run was defeated. P. H. Weber, Cy. Engr.

CHICAGO, ILL.—The citizens are starting a movement looking to the formation of a garbage law to prohibit the dumping of refuse in open places in the city. Efforts will be made to build four crematories, at a cost of $500,000. There are nine large public dumps inside the city limits.

SALT LAKE CITY, UTAH.—Councilman Whittemore and Health Commissioner King have submitted a report recommending a crematory for a city of about 100,000 population, to cost about $25,000.

STREETS AND ROADS.

NORTH ADAMS, MASS.—Bids are asked until Sept. 1 for laying about 1,500 sq. yds. of brick pavement on State St. J. L. Temple, Comr. Pub. Wks.

PAWTUCKET, R. I.—It is stated that the question of building a highway 100 ft. wide and about six miles long, between this city and Attleboro, is being discussed.

ALBANY, N. Y.—Mayor Blessing has signed the ordinances providing for the paving of Park Ave. and Plain St. with brick.

ALBANY, N. Y.—Bids are asked by the board of contract and supply until Sept. 4 for paving Livingston Ave. with granite blocks. Isidore Wachsman, Clk. Bd.

BROOKLYN, N. Y.—Bids are asked by the board of park commissioners, Arsenal, Central Park, Manhattan, until Sept. 6 for furnishing about 110,600 sq. ft. of asphalt tiles in Red Hook and Fort Green Parks, and a quantity of stone coping at Prospect Park.

GENEVA, N. Y.—Bids are asked by the board of public works until Sept. 6 for about 4,000 sq. yds. of brick and block paving, as stated in our advertising columns.

OWENSBORO, N. Y.—Bids are asked until Sept. 5 for about 30,000 sq. yds. of asphalt pavement, as stated in our advertising columns. E. B. Shirley, Cy. Engr.

ROCHESTER, N. Y.—The council has decided to construct cement walks in Rockland and Cady Sts., and Aldem Place, to cost about $5,100.

WHITE PLAINS, N. Y.—Bids are asked, according to reports, by the board of village trustees until Sept. 18 for macadamizing Broadway, Hamilton, Chester and Barker Aves., and Church, William and Lake Sts., to cost about $100,000.

EAST ORANGE, N. J.—Bids are asked until Sept. 10 for macadamizing a number of streets. S. M. Long, Cy. Clk.

CHESTER, PA.—Bids are asked until August 31 for paving Broad St. with sheet asphalt. Jas. R. Bagshaw, Chn. Com. on Streets; Frank W. Harrison, Cy. Clk.

WILKINSBURG, PA.—The council has directed the borough engineer to advertise for bids for paving a number of streets, according to reports.

WHEELING, W. VA.—Bids are asked, according to reports, until Sept. 1 by the county commissioners for constructing about 5,250 ft. of macadam road in the county.

WAYCROSS, GA.—The questions of issuing $100,000 in bonds for constructing county roads, and also of constructing a macadam road from this city to Waltertown, about six miles, are being discussed, according to reports.

AKRON, O.—Bids are asked until Sept. 15 for paving Beck Ave. with brick. Chas. H. Isbell, Cy. Clk.

AKRON, O.—Bids are asked, according to reports, until Sept. 22 by the county commissioners for paving Summit St. with brick and stone. Charles H. Isbell, Cy. Clk.

CANTON, O.—Bids are asked until Sept. 15 for improving West Fourth, Mulberry, Walla, Dowalt and West Williams Sts. Phil. H. Weber, Cy. Engr.

CINCINNATI, O.—The Trinidad Asphalt Paving Co. is said to have submitted the lowest bid, at $10,019, to the board of public service for improving Bruce Ave.

FINDLAY, O.—The following bids have been received by City Engineer Reigel for paving Locust St.; L. Drach, $6,303 (rejected); C. B. Hall & Son, $6,414; Pfaff, Ringwald & Smith, $6,545.

LIMA, O.—Bids are asked until Sept. 3 for the purchase of $34,000 in bonds for paving East Market St., $23,000 for paving East McKibben St., $6,700 for paving West High St., and $2,250 for paving Cherry and Buckeye Alley. C. E. Lynch, Cy. Clk.

YOUNGSTOWN, O.—The council has passed ordinances providing for the paving and improving of Wood and West Boardman Sts. J. R. Woolley, Pres. Council; Wm. I. Davies, Cy. Clk.

YOUNGSTOWN, O.—Bids are asked until Sept. 8 for paving Pike St. and for grading and improving Caldwell, Eagle, Ardale and Wallace Sts. C. E. Cross, Cy. Clk.

EVANSVILLE, IND.—City Engineer Saunders is said to have estimated the cost of asphalting Linwood Ave. at about $7,100.

GRAND RAPIDS, MICH.—The city engineer is said to have submitted the following estimates to the board of public works: Improving South Fuller St., $5,330; paving Hastings St. with brick, $5,278, and paving Trowbridge St. with brick, $5,766.

CHICAGO, ILL.—L. E. McGann, Comr. Pub. Wks., will, it is said, soon ask for bids for improving State, Clark and 22d Sts., and Wabash and Archer Aves.

MOLINE, ILL.—We are informed that the following bids were received Aug. 21 by H. G. Paddock, Cy. Engr., for about 16,247 sq. yds. of asphalt and 943 sq. yds. of brick paving: Barber Asphalt Paving Co., Stock Exchange Bldg., Chicago, $44,675 (accepted); Warren-Scharf Asphalt Paving Co., foot of Voorhis St., Peoria, $45,660; Western Paving & Supply Co., 164 Lake St., Chicago, $45,957.

PONTIAC, ILL.—The following bids were received August 17 by Fred. G. White, Cy. Clk., for about 19,000 sq. yds. of brick pavement, as advertised in Engineering News: J. F. Brest & Son, Springfield, $35,610; John Cherry, Jr., Jacksonville, $34,171 (accepted).

MENOMINEE, WIS.—The county commissioners are said to be considering the question of macadamizing the old bay shore road from this city to Cedar River, to cost about $35,000.

ST. JOSEPH, MO.—It is stated that the council has decided not to purchase the asphalt paving machine.

WOODLAND, CAL.—We are informed that the question of paving First and College Sts. is being considered, but that the board of trustees has as yet taken no action. P. N. Ashley, Cy. Engr.

MANUFACTURING PLANTS.

BRUNSWICK, ME.—We are informed that the Androscoggin Pulp Co. has had plans prepared for a new mill here, bids for which will soon be asked. The company will probably spend about $1,000,000 in the near future. Address Superintendent Lyons.

ROSE HILL, VA.—Reports state that a large iron furnace will shortly be erected here. Brown Bros., 59 Wall St., New York, N. Y., are said to be interested.

FAIRMONT, W. VA.—It is stated that the Virginia & Pittsburg Coal Co. will rebuild its plant. A small town has been laid out.

HENRIETTA, N. C.—Press reports state that Ladshaw & Ladshaw, Spartanburg, S. C., will make surveys and prepare plans for developing the power on Broad River, and for erecting a 65,000-spindle cotton mill about 3½ miles below here. R. R. Haynes is said to be at the head of the enterprise.

NEWNAN, GA.—The directors of the Newnan Cotton Mills are said to have awarded the contract for erecting mill No. 2 to the R. D. Cole Mfg. Co., at about $35,000.

COURTLAND, ALA.—It is stated that C. C. Morgan, of Hillsboro, will erect a hoop factory at this place.

SHREVEPORT, LA.—Bids are asked until Sept. 1 for erecting the new mill building here for the Hargrove Cotton Mill Co. Miss Rosa Kelley, Secy.

CUERO, TEX.—J. A. Graves, Alex. Hamilton, Otto Buchel and others will erect a new cotton mill here, to cost about $100,000, according to reports.

HILLSBORO, TEX.—The directors of the Hillsboro Cotton Mills will, it is stated, soon receive bids for erecting its proposed plant, to cost about $75,000. A. L. Lowrey, Pres.; T. E. Tomlinson, Secy.

PITTSBURG, TEX.—We are informed that B. F. Furgueson, of McKinney, will erect a furniture factory here next month.

EAST LAKE, TENN.—B. A. Stockard, E. B. Thomasson, of Chattanooga, and others have incorporated the Chickamauga Knitting Mills, and will erect a one-story brick factory, 50 x 100 ft., at once.

MISCELLANEOUS CONTRACTS

DITCH.—Coldwater, Mich.—We are informed that about six miles of ditch will be constructed here this fall. I. D. Miner, Engr.

LEVEE WORK.—Cincinnati, O.—Bids are asked until Sept. 22 for improving the Union Levee. E. L. Lewis, County Audr.

BEACONS.—Mobile, Ala.—Bids are asked until Sept. 24 for erecting four beacons in Biloxi Harbor, Miss. Lieut.-Col. A. N. Damrell, U. S. Engr.

ARMOR.—Washington, D. C.—Bids are asked until Oct. 2 for furnishing a quantity of steel armor for naval vessels. F. W. Hackett, Acting Secy. of Navy.

DREDGING.—Boston, Mass.—Bids are asked until Sept. 25 for dredging in Malden River, Mass., as stated in our advertising columns. Col. Chas. R. Suter, U. S. Engr.

LOCK.—Cincinnati, O.—Bids are asked until Sept. 29 for building Lock No. 1 in the Big Sandy River, as stated in our advertising columns. Capt. H. F. Hodges, U. S. Engr.

PARK IMPROVEMENT.—Albany, N. Y.—Bids are asked until Sept. 4 for constructing certain improvements to Dana Park. Isidore Wachsman, Clk. Bd. Contract and Supply.

BULKHEAD.—Stockton, Cal.—The board of public works is said to have let the contract for constructing a permanent bulkhead on the north of the channel to H. E. Barber at $8,015.

REPAIRING JETTIES.—Port Clinton, O.—Bids are asked until Sept. 21 for a stone reinforcement and repair of jetties in this harbor. Col. Jared A. Smith, U. S. Engr., 185 Euclid Ave., Cleveland.

DREDGING.—New York, N. Y.—Bids are asked until Sept. 26 for dredging in the channel between Staten Island and New Jersey, as stated in our advertising columns. Col. J. W. Barlow, U. S. Engr., Army Bldg.

NAVAL SUPPLIES.—Mare Island, Cal.—Bids are asked until Sept. 11 for furnishing a quantity of machine tools, iron pipe, bricks, etc., at the navy yard. A. S. Kenny, Paymaster Gen., U. S. N., Washington, D. C.

BREAKWATER, WHARF, ETC.—Newport, R. I.—Bids are asked until Sept. 4 for building a breakwater, wharf and sea wall and for reclaiming basin northwest of main causeway at the naval training station. A. S. Kenny, Paymaster Gen., U. S. N., Washington, D. C.

PARK WORK.—New York, N. Y.—Bids are asked by the department of parks, Arsenal, Central Park, until Sept. 6, for a skate and golf house at Van Cortlandt Park, for contract No. 2 at the New York public library, 40th to 42d Sts. and Fifth Ave., for a new electric light plant, and alterations to boiler room, etc., at the Metropolitan Museum of Art, Central Park, and for building men's lavatories on the Harlem River Driveway.

RAPID TRANSIT TUNNEL.—Boston, Mass.—Bids are asked by the Boston Transit Commission, 20 Beacon St., until Sept. 4, for making changes in the subway near Pleasant St., to make connections with the tracks of the elevated railway. The work to be done consists of excavating, splicing of steel posts, underpinning, masonry construction, etc., for building a subway station north of Pleasant St., as stated in our advertising columns. H. A. Carson, Ch. Engr.

NAVAL SUPPLIES.—Washington, D. C.—Bids are asked until Sept. 4 for furnishing supports and runways for an electric crane, a quantity of cement, hardware, iron pipe, steel forgings, electric motors, etc., at the navy yard, and a quantity of hardware, glass, screws, cement, paving blocks, etc., at the Norfolk, Va., navy yard; also for a quantity of windlasses, oakum, spikes, nails, galvanized iron, etc., at the Pensacola, Fla., navy yards. A. S. Kenny, Paymaster Gen., U. S. N.

FOREIGN CONTRACTS AND EXPORT NEWS.

RAILWAY.—Santander, Spain.—The Santander & Bilbao Ry. Co. is said to have been granted a 99-year concession for a railway to Puente Arce.

FURNITURE.—San Juan, P. R.—Bids are asked until Sept. 20 for furnishing desks, chairs, guard rails, etc., for the legislative hall. W. M. Hunt, Secy.

ELECTRIC CRANE.—Southampton, Eng.—Bids are asked until Sept. 10 for furnishing a 30 cwt. portable electric wharf crane. Walter Bowyer, Acting Clk., Harbor Offices, Southampton.

RESERVOIR.—North Shields, Eng.—Bids are asked until Sept. 18 for building a 735,000,000-gallon reservoir at Emesley. Jas. Mansergh, Engr., 5 Victoria St., Westminster, London; H. A. Adamson, Town Clk.

COLONIZATION CONCESSION.—Mexico.—MacManus & Macedo have been granted a concession to colonize within five years certain lands in Chihuahua. There will be erected at once public buildings, streets, etc.

WATER-WORKS.—Cardenas, Cuba.—Bids are asked until Oct. 1 for furnishing the materials and for building water-works and for furnishing a water supply. Population about 10,000. C. M. De Rojas, Acting Mayor.

ELECTRIC PLANT.—Southampton, Eng.—Bids are asked until Sept. 11 for an electrical plant of 350 lights for the workhouse infirmary; bond, $7,500. J. G. W. Aldridge, Engr., 9 Victoria St., Westminster, London; D. P. Gwillian, Clk.

TRAMWAYS AND SEWERS.—Derby, Eng.—It is proposed to spend about $1,000,000 for converting the tramways into electric traction, and about $1,500,000 for new sewers. Thos. Walker, Borough Engr.; T. H. Minshall, Elec. Engr.

STOREHOUSES.—Taku, China.—Bids were received by the quartermaster's department, U. S. A., Seattle, Wash., Aug. 25 for furnishing 513,000 ft. B. M., of common lumber, hardware, corrugated iron, doors, etc., for the proposed warehouses at Taku.

ELECTRIC TRAMWAYS, ETC.—Smethwick, Eng.—The local town board is considering the question of electric tramways and electric lighting. It is also proposed to spend about $500,000 for a technical school building, gas works, etc. C. J. Fox-Allin, Surv.

MACHINE SHOP.—Birmingham, Eng.—Bids were received Aug. 28 for erecting a complete machine and testing shop at Witton, near Birmingham. The shops will have a cubical content of about 2,600,000 ft. Address Byng, Hirst & Byng, 71 Queen Victoria St., London, E. C.

ELECTRIC PLANT.—Hackney Vestry, London, Eng.—Bids are asked until Sept. 12 for furnishing the machinery, etc., for a complete electric plant, including a traveling crane, workshop equipment, cooling apparatus, etc. Robt. Hammond, Engr., 64 Victoria St., Westminster, London.

POWER PLANT.—Glasgow, Scotland.—Preece & Cardew, 13 Queen Annes Gate, Westminster, London, and Strain & Robertson, 154 West George St., Glasgow, have made a report for water power plants to furnish power to the coal mines, industrial plants, etc., in the West of Scotland section.

PUMPING STATION.—Havana, Cuba.—Reports state that plans and estimates for two or three pumping stations are being made. Plans are said to have been prepared by Samuel M. Gray, of Providence, R. I., for a sewerage system. Maj. W. M. Black, U. S. Engr., Dept. Pub. Wks.

SHIPYARDS.—Antwerp, Belgium.—Reports state that Col. Thys and other capitalists of Brussels, Hamburg and Bremen, intend to build near Antwerp a shipyard which will be the largest on the Continent. It is believed that the North German Lloyd Steamship Co. is interested in the undertaking.

RAILWAY WORK.—Manchuria.—We are informed that the Russian railway in Manchuria has been partly destroyed by the Chinese, and the work of completing it interrupted. A large amount of loose material has been ruined. The work will begin again as soon as the trouble in China has ended.

WATER PIPE, ETC.—Bundaberg, Queensland.—Bids are asked until Nov. 12 for furnishing about 880 tons of cast iron water pipe, castings, valves, etc., for the Bundaberg water-works. Deposit, $250; deposit for specifications, etc., $5. Address the Hydraulic Engineers Office, Edward St., Brisbane, Queensland.

BUILDING MATERIALS.—San Juan, P. R.—Reports state that prices, catalogues, etc., of common building brick, hard yellow pine, woodwork, etc., are wanted at once by Franklin H. Janes, Government Arch., who also wants the names and addresses of carpenters and masons who wish to work in Porto Rico.

ELECTRIC TRAMWAY.—Lahore, India.—Bids are asked until Nov. 14 for furnishing the materials and for constructing 6¼ miles of electric tramway, including 18 sets of points and crossings, 120 double side-tipping cars, plate laying tools, three turntables, three 2-ft. gage wood-burning locomotives, etc. D. Johnston, Secy. Municipal Com.

BUILDINGS, BRIDGES, QUAYS, ETC.—St. Petersburg, Russia.—Reports state that the city authorities have resolved to raise a loan of $11,845,000 for rebuilding, repairing and improving the buildings, streets, bridges, quays and pavements of the city by the year 1903, when the 200th anniversary of the foundation of St. Petersburg will be celebrated.

RAILWAYS.—Queensland, Australia.—It is proposed to connect the railway systems of Queensland and New South Wales at the Tweed River. Queensland has been granted authority to permit the construction of not more than $5,000,000 worth of railway work a year. About $40,000,000 worth of work has been surveyed. J. G. F. Foxton, Home Secy., Brisbane.

RAILWAY WORK.—Russia.—Reports state that M. de Witte, Minister of Finance, St. Petersburg, has granted 8,500,000 rubles for rebuilding immediately a portion of the Trans-Siberian Ry., by laying new rails, replacing the wooden bridges with iron or stone structures, etc. J. Balaschoff, Secy. Railway Administration, Fontanka, 117, St. Petersburg.

FIREPROOF MATERIALS.—Mexico, Mex.—V. Cascino, Apartado 911, Mexico, wants bids from the United States for 50 ready-made houses of fireproof wood; also for a 4-story fireproof building. Mr. Cascino is an agent, and states that bids are preferred from construction companies that will furnish the masonry, fireproof material and erect the entire buildings.

RAILWAY SHOPS.—Tolosa, Argentina.—It is stated that the Buenos Aires Great Southern Ry. Co. has purchased the workshops of the Buenos Aires Western Ry. The construction of the new workshops of the Western Ry. will be started as soon as T. L. Chubb, Locomotive Supt., Buenos Aires, returns from England. Livesey, Son & Henderson, Engrs., Broad St. Ave., London, E. C.

RAILWAYS.—South Australia.—Reports state that it is proposed to build a railway from Angaston to a point on the main line, probably Gawler or Roseworthy.——The question of building a railway from the iron mine, Caroona to Port Lowly, Spencer's Gulf, is being considered by the government of South Australia and the Broken Hill Proprietary Co., Broken Hill, N. So. W.

RAILWAY.—San Domingo.—President Jiminez, of San Domingo, is reported as stating that he will grant a concession for a railway on the plains of Ceybo Province from La Romana to an American, who will promise to build the line at once. The matter of securing labor to carry on any great amount of work is becoming difficult, there being no desire on the part of the natives to get employment.

ELECTRIC TRAMWAY.—Birmingham, Eng.—The council has granted the Birmingham Tramway Co., Ltd., permission to build and operate an experimental overhead trolley system. The company is desirous of equipping its entire line, and the proposed extensions, not yet under way, with electricity.——The city authorities are in favor of the municipal ownership of the tramways. F. W. Warren, Mgr.

LOCOMOTIVES.—Teheran, Persia.—It is stated that John M. Ward, an Englishman, attached to the personal service of the Shah, is visiting the United States with a view to placing contracts for several locomotives, launches, etc. A new railway is now building between Teheran and the Persian Gulf. One, and possibly a second, line will soon be started through to the Gulf. The roads are being built by Russian capital and Russian engineers.

ELECTRIC TRAMWAY.—Buenos Aires, Argentina.—Valera, Cuneo Hermanos & Co., of San Fernando, Argentina, owners of an electric plant at San Fernando, have obtained concession for an electric line to neighboring towns. Plans are to be presented at once, and the work is to be commenced within seven months.——Reports also state that a carbide of calcium factory will be built at once under the supervision of Viscount Eugene de Boismenu. The power plant has already been built.

REPAIRING RAILWAY.—Guatemala.—U. S. Consul-General McNally reports from Guatemala, July 27, that owing to the heavy rains a serious washout has occurred on the Northern Ry., which extends from Puerto Barrios to El Rancho. Several bridges have been destroyed. The Government has appointed a corps of engineers to estimate the damages, with a view to immediately repairing the line. Address Martin Roberts, of Puerto Barrios, Guatemala. Rafael Ponciano, Minister Pub. Wks., Guatemala City.

RAILWAY MATERIALS AND FIREARMS.—Bangkok, Siam.—U. S. Minister King, of Bangkok, under date of June 20, informs the state department that he has succeeded in securing an open tender for American manufacturers in the construction of the Petchaburee R. R. by the

Siamese Government. K. Bethge, Dir. Gen., Bangkok.—Bids for the construction of a plant for the manufacture of ammunition in that country were opened to American competition in March, and a bid was asked from the United States on 20,000 rifles and 10,000,000 cartridges.

DEPARTMENT STORE.—London, Eng.—Reports state that Siegel, Cooper & Co., Chicago and New York, propose to build a department store with frontage on three streets in a populous district of the West End. The building will be eight or more stories high and will cover a space 400 × 200 ft. Vice-President Siegel will have charge of the work. It is said that Sir Thos. J. Lipton, City Road, London, E. C., is interested.—It is reported that Prof. Chas. E. Tripler, of New York, will build a plant for the manufacture of liquid air in London, and that the contracts for the machinery have been let.

SUGAR MILL, ETC.—Cuba.—Press reports state that there is a resumption of work upon the part of the agricultural industries in the Province of Santiago de Cuba. The United Fruit Co., at Banes, is erecting a $1,500,000 sugar mill, with a capacity of 1,100 bags daily; a large amount of English and American capital is being invested at Baracoa for the exportation of coacoanuts to the number of 1,500,000 monthly, the provincial cities are becoming self-sustaining and the military government is gradually withdrawing the municipal and direct financial assistance from the island's funds.

FIELD ORDNANCE.—Madrid, Spain.—The Minister of War has been authorized to purchase by private treaty 144 rapid-firing field guns, with their carriages, accessories, and supply of cartridges, and spare pieces. The minister is authorized to designate the foreign houses who are to supply material, and also to arrange with them for producing a repetition of the same in the national factories. The cost of the purchase and the production indicated would be provided for in the first instance by about $1,150,000, which remain from the special credit granted by the law of Aug. 30, 1896.

FORTIFICATIONS AND HARBOR WORK.—Guam, Pacific Ocean.—Capt. J. F. Merry, now on duty at the naval station in Honolulu; Major Biddle of the army Engineer Corps, now on duty in the Philippines, and Lieut. A. M. Beecher, now on duty in Washington, and recently attached to the naval surveying ship "Eagle," have been appointed a commission to make surveys for fortifications and harbor works in Guam. Lieut. Beecher is now accumulating the outfit for the commission in Washington, and will proceed shortly to San Francisco, whence he will sail on the "Solace" about Oct. 1, picking up Capt. Merry at Honolulu.

SUGAR FACTORY.—Honolulu, H. I.—The Hawaiian Commercial & Sugar Co. has ordered the construction of a new sugar factory near Kalmiui. The cost of the works erected for the 350 tons capacity, including the large steel building ordered, will probably be about $700,000. The cost of the works for 500 tons capacity will probably be about $900,000. Besides the above work the company has under consideration a ditch for carrying 10,000,000 gallons of water a day and a pumping plant costing about $250,000. The company owns 20,000 acres of sugar lands, and controls the Mauri R. R. & Steamship Co. and the Kalmiui R. R. Co. Geo. M. Roeph, Secy.

PETROLEUM DEVELOPMENT.—Algeria.—The British Consul General at Algiers reports that three companies have applied for concessions for working petroleum wells. The localities to be exploited are Ain Teft, department of Oran, and the Tiliovanet district, in the commune of Hillil. Two companies have applied for concessions in the latter district. A report has lately been issued by Henry Neuberger, who was commissioned by the Governor-General of Algeria to examine the petroliferous possibilities of Oran. Four zones rich in petroleum exist in Western Algeria, stretching from northwest to southeast for a distance of about 125 miles.

RAILWAY.—Brazil.—Reports state that a proposal is to be made by the Sao Paulo & Rio Grande Ry. Co. for taking over the Sorocabana Ry. The S. P. & R. G. Ry., now under construction, is the property if a Brazilian company, with an issue of bonds in Paris. The concession was originally for a line from Santa Maria da Bocca do Monte, in Rio Grande, to Itarare, on the frontier of Sao Paulo and Parana, passing through Cruz Alta, Lage, and Ponta Grossa, besides several branches. The section from Santa Maria to Cruz Alta was ceded to the Cie. de Chemins de fers sud Ouest Brasiliens, rue de l'Industrie, 33, Brussels, Belgium, and has been working for some time. The section from Ponta Grossa to Itarare has been also partly constructed and the company is pushing on the works, north and south. Should the line be joined with the Sorocabana Ry. and this extended to Itarare, a through route would be secured from Rio to the south and the frontier of Uruguay. Gustave Vauthier, Mgr., Rio Grande do Sul.

CONTRACT PRICES.

CANAL WORK.—Illinois & Mississippi Canal, Ill.—The following bids were received by Maj. J. H. Willard, U.S. Engr., Chicago, Aug. 22, for constructing six miles of the western section of the Illinois & Mississippi Canal, being Miles 33 to 38, inclusive; $100,000 is available for the work:

Bids Received at Chicago, Ill., Aug. 22, 1900, for Six Miles of Western Section of Ill. & Miss. Canal.

Bidder.	Earthwork on miles— 33. 108,853 cu.yds. cts.	34. 113,216 cu.yds. cts.	35. 112,570 cu.yds. cts.	36. 91,085 cu.yds. cts.	37. 113,796 cu.yds. cts.	38. 174,728 cu.yds. cts.
Katz & Callahan, Omaha, Neb	10.90	10.75	8.45	7.95	11.50	14.75
Wm. P. O'Neil, Hahnaman, Ill.	.....	.....	8.90	....	.....	.....
T. W. Kinser & Sons, Terre Haute, Ind.	10.0	12.0	8.5	8.5	12.0	16.0
Pehlan & Wickham, Council Bluffs, Ia.	13.0	10.75	9.0	8.5	12.0	16.0
Flynn Bros., Sheffield, Ill.	9.90	.....	6.5	...	.....	.....
Solomon P. Bennett, Atkinson, Ill.	....	.....	9.5	7.5	.....	.....
John J. McCaughey, Summit, Ill.	11.98	16.98	9.88	7.98	17.98	19.98
Pond Construction Co., Chicago, Ill.	11.0	10.0	10.0	10.0	15.0	16.0
Geo. W. Jackson Construction Co., Chicago, Ill.	15.0	14.0	9.9	8.9	25.0	37.0

LEVEE WORK.—Memphis, Tenn.—The following bids, received Aug. 15, 1900, have been recommended for acceptance for levee work in Lower Yazoo and Upper Tensas levee districts; Capt. Chas. L. Potter, U. S. Engrs., Memphis: Lower Yazoo levee district—Station 3360-3562, 75,000 yds. (16,000 yds. topping, 19,000 yds. enlargement, 40,000 yds. new levee spur), Geo. Miller, Greenville, Miss., 15.99 cts.; 1130-1346, 50,000 yds. banquette, Ernest Hyner, Greenville, Miss., 10.74 cts; 2108-2310, 45,000 yds., W. M. Bates, care Arnold Co., Greenville, Miss., 12.5 cts; 2380-2572, 60,000 yds., H. F. Watkins, Hillhouse, Miss., 14.625 cts.; 2880-3169, 70,000 yds., Ernest Hyner, 11 cts., 3181-3440, 85,000 yds. (80,000 yds. banquette, 5,000 yds. enlargement), 11 cts., and 3385-3483, 95,000 yds. enlargement, 12.47 cts.; 4000-4243a, 120,000 yds., M. J. Roach & Co., Memphis, Tenn., 15.4 cts., and 4215-4407, 100,000 yds., 15.4 cts. Upper Tensas levee district in Arkansas,—1240-1510, 128,000 yds. (120,000 yds. enlargement, 8,000 yds. banquette), McBain Bros, care Arnold Co., Memphis, 12.4 cts.; 2047-2100, 43,000 yds. enlargement, J. B. Lewis, care Arnold & Co., Memphis, 18.7 cts.; 2533-2652, 45,000 yds., M. J. Roach & Co., 22.45 cts.; 2662-2740, 85,000 yds., J. B. Lewis, 13.70 cts. Upper Tensas levee district in Louisiana,—2840-2518, 175,000 yds. new, Robt. Nicholson, Villa Vista, La., 14.94 cts., banquette, 24,000 yds. banq., 15.91 cts., 2519-2555, 172,000 yds., new, 15.61 cts., banquette, 24,000 yds. banq., 15.61 cts., 2556-2586, 174,000 yds. new, 17.61 cts., banquette, 25,000 yds. banq., 17.61 cts., 2587-2618, 173,000 yds. new, 16.21 cts., banquette, 25,000 yds. banq., 16.91 cts., 2619-2651, 172,000 yds. new, 16.21 cts., and banquette, 25,000 yds. banq., 16.21 cts.; 2652-2697, 180,000 yds. new, J. K. Jeffries & Sons, care Duggin Bros., Memphis, Tenn., 15.5 cts., and banquette, 23,000 yds. banq., 15.5 cts.; 2698-275 + 44, 153,000 yds. new, Thomas Bros., care Arnold Co., Memphis, 12.99 cts., and banquette, 15,000 yds. banq., 12.99 cts.

PAVING.—Canton, O.—The following bids were received Aug. 4 for paving in several streets; all but Stocker & Slaughter, Ravenna, O., are local bidders; W. E. Sarver, Asst. Cy. Engr.; L. E. Chapin, Cy. Engr.:

Bids Received at Canton, O., Aug. 4, 1900, for Paving in Short St.

Quantities.		T. K. Turnbull.	Stocker & Slaughter.	Corl & Dine.	Wm. S. Hadley.	Jos. George.	Richard Stanton.
6 × 20-in. straight standstone curb	4,400 lin. ft.	$0.35	$0.33⅔	$0.35	$0.35	$0.36	$0.38
5 × 18-in. abutment " "	256 " "	.50	.34⅓	.40	.30	.38	.38
6 × 20-in. circular " "	300 " "	.50	.45	.50	.50	.44	.38
6 × 20-in. straight Berea curb	4,400 " "	.60	.40	.42	.43	.46	.40
5x18-in. abutment and 6x20-in. circular Berea curbs*		.60	.41	.52	.40	.48	.40
Grading	11,700 cu. yds.	.16	.14¾	.17½	.16½	.14	.18
Berea flagstone, 2½ ins. thick, sawed	21,800 sq. ft.	.14	.15	.13¾	.15	.13¾	.14
McDermott blue flagstone	21,800 " "	.15	.12 7/16	.13¾	...	.13¾	...
Euclid blue flagstone	21,800 " "	.15	.15	...	...	.13¾	...
Vitrified block crosswalks	400 sq. yds.	.70	.60	.75	.55	.65	...
Totals: Sandstone curb, Berea flagging, etc.		$6,922	$7,040	$7,137	$7,187	$6,729	.....
Berea curb, Berea flagging, etc.		8,078	7,251	7,521	7,580	7,224	.....
Berea curb, McDermott blue flagging, etc.		8,296	6,392	7,521	.....	7,224	.....
Sandstone curb, McDermott blue flagging, etc.		7,140	6,181	7,137	.....	6,729	.....
Sandstone curb, Euclid blue flagging, etc.		7,148	7,040	.....	.....	6,729	.....
Berea curb, Euclid blue flagging, etc.		8,296	7,251	.....	.....	7,224	.....

*The bids for these two particular curbings were the same; the quantities were 250 and 300 ft. respectively.

ASPHALT PAVING.—Aurora, Ill.—The following bids were received Aug. 7, 1900, for asphalt and brick pavement, and curbing and gutter; wearing surfaces—Downer Place, 2 ins. thick, binder 1½ ins., concrete base 6 ins.; La Salle St., 1½ ins. thick, binder 1½ ins., concrete base 5 ins.; (1) asphalt paving, 19,580 yds.; (2) combined granite curb and gutter, 11,907 ft.; (3) brick paving (Hallwood block) 2,595 yds.; (4) asphalt paving, 19,530 yds.; (5) broken stone, finest granite, combined curb and gutter, a lin. ft.; Theo. Howard, Mayor:

Bidder.	Downer Place. 1.	2.	3.	La Salle St. 4.	5.
R. F. Conway, Chicago	*$2.04	$0.68	$1.65	$1.84	$0.70
Barber Asp.Pav. Co.,Chicago	2.10	.70	1.95	1.84	.60
Ayers Asp. Co., Zanesville,O.	2.10	.70	2.00	*1.81	.58
Warren-Scharf Co., N. Y.	2.21	.70	2.05	1.97	.60
Wst'n P.& S.Co.,Indianapolis	2.18	.75	2.00	1.95	.65

*Awarded contracts. Stamsen & Bloome, Chicago, were awarded contracts on curbing for both streets—granite combined curb and gutter (Downer Place), 61 cts. a ft.; broken stone combined curb and gutter (La Salle St.), 48 cts.

BRICK PAVING.—Findlay, O.—The following bids were received by Frank C. Ray, Cy. Clk., Aug. 16, 1900, for paving Locust St. with Athens block; contract awarded C. B. Hall & Son; J. W. Riegle, Cy. Engr.:

Items.	L. Drach Const'n Co., Cincinnati.	C. B. Hall & Son, Findlay.	Pfaff, Ringwald & Smith, Chillicothe.	U. K. Stringfellow, Findlay.
Excavation, a cu. yd.	$0.15	$0.18	$0.20	.....
Paving, a sq. yd.	1.20	1.20	1.22	$1.33
Berea curb, a lin. ft.	.29	.35	.35	.37
Limestone edge, a ft.	.25	.15	.15	.13
S. w. abutments	.30	.35	.80	.34
4-in. drain tile, a ft.	.04	.03	.03	.02
Catchbasins, each	35.00	25.00	25.00	25.00
8-in. sewer, a ft.	.20	.20	.22	.20
Branch on 8-in., a ft.	.40	.70	.65	.70
On 10-in., a ft.	.60	1.00	.85	1.00
On 12-in., a ft.	.80	1.30	1.00	1.30
Total	$6,303	$6,414	$6,545	.....
Time to complete	.....	30 dys.	Oct. 10.	Nov.10.

RIP-RAP, ETC.—Aransas Pass, Tex.—Chas. Clarke & Co., Galveston, Tex., submitted the only bid July 30, 1900, for improving Aransas Pass, Tex., at $4.80 a ton for 5,500 tons of rip-rap in place and at $5.10 a ton for 7,000 tons of large blocks in place, 3 to 6 tons each; total, $62,100. Capt. C. S. Riche, U. S. Engr., Galveston.

CEMENT.—Little Rock, Ark.—The following bids were received Aug. 22, 1900, for furnishing 5,000 bbls. of American Portland cement, as advertised in Engineering News; Capt. Robt. McGregor, U. S. Engr.: Virginia Portland Cement Co., 81 Fulton St., New York, $206, Old Dominion brand, on I. M. Ry.; Glencoe Lime & Cement Co., St. Louis, Mo., $230, Lehigh brand, at Birds Point, Mo.; Michigan Portland Cement Co., Detroit, Mich., $270, Wolverine brand, St. L., I. M. & So. C., O. & G. Ry., or L. R. & F. Ry.; Alpha Portland Cement Co., Easton, Pa., $220, Alpha brand, Birds Point, Mo.; Thorn & Hunkins Lime & Cement Co., St. Louis, Mo., $235, Atlas brand, Birds Point; Iola Portland Cement Co., Iola, Kan., $225, Iola brand, Alma, Ark., L. R. & Ft. S. Ry.

CAST-IRON SEWER PIPE.—South Framingham, Mass.—M. J. Drummond & Co., New York and Lynchburg, Va., are reported to have been awarded the contract at $25.75 a ton of 2,240 lbs. for furnishing 4,340 ft. of 18-in. cast-iron pipe for a sewer in the Arlington St. and Beaver Dam Brook district. Specials were awarded to the same firm at 2¼ cts. a lb.

PUMPING ENGINES.—Cleveland, O.—The following bids were received Aug. 23, 1900, for furnishing two or four 25,000,000-gallon, vertical, triple-expansion, crank-and-flywheel pumping engines; M. W. Kingsley, Supt. Water-Works:

Bidder.	Weight.	Engines, complete, for service. Two.	Four.
Holly Mfg. Co., Lockport, N. Y.	795 tons.	$124,700	$122,900
Camden Iron Works*	820 "	131,500	131,500
Kilby Mfg. Co., Cleveland	890 "	143,750	140,750
E. P. Allis Co., Milwaukee	900 "	169,700	168,900

*R. D. Wood & Co., Philadelphia.

DREDGING.—Philadelphia, Pa.—The following bids were received Aug. 24, 1900, for 55,000 cu. yds. of dredging in the Schuylkill River: American Dredging Co., 236 Walnut St., Philadelphia, Pa., 19½ cts., $10,725; River & Harbor Improvement Co., Camden, N. J., 17½ cts., $9,625.

The following are the successful bids for work on other streets: Rex St.—Geo. Oliver sandstone curb, straight and circular, 700 and 15 ft. respectively, 35 cts a lin. ft.; sandstone curb abutment, 5x18 ins., 30 ft., 40 cts.; wire-cut block, 2 of cement and 1 sand filler, 840 yds., 80 cts.; wire-cut block, 1 of cement and 1 of sand filler, 78 cts.; Berea straight curb, 700 ft., 45 cts.; Berea circle curb, 15 ft., 50 cts.; Berea abutment curb, 5x18 ins., 30 ft., 45 cts. Hazlett Ave.—Harry Carl, sandstone curbing, straight, 6x20 ins., 900 ft., 36 cts.; standstore curbing abutments, 5x18 ins., 50 ft., 40 cts.; sandstone curbing, circles, 6x20 ins., 50 ft., 50 cts.; Berea curbing, 6x20 ins., straight, 900 ft., 42 cts.; Berea curbing abutments, 5x18 ins., 50 ft. 65 cts.; Berea curbing, circles, 6x20 ins., 50 ft., 62 cts.; grading, 2,200 yds., 18 cts.; graveling, 350 cu. yds., 25 cts.; Berea flagstone, 4,300 sq. ft., 13¾ cts.; McDermott blue flagstone, 4,300 sq. ft., 13¾ cts.; vitrified block gutter, 500 sq. yds., 75 cts.; block crosswalks, 50 yds., 80 cts.; lawning, 300 sq. yds., 8 cts.

SEWERS.—Alexandria, Va.—The following bids were received Aug. 14, 1900, by J. S. Humphrey, Cy. Engr., for constructing brick and pipe sewers; all local bidders:

Quantities.		P. T. O'Brien.	R. L. King.	S. J. Brandow.
Brick sewer, 2x3-ft.:				
Double ring	120 lin. ft.	$3.72	$3.45	$3.70
Single ring	2,242 " "	2.51	2.35	2.50
24-in. sewer pipe	452 " "	1.79	1.70	1.79
20-in. " "	1,500 " "	1.67	1.60	1.60
12-in. " "	624 " "	.72	.69	.82
10-in. " "	360 " "	.68	.65	.75
9-in. " "	1,100 " "	.62	.55	.72
8-in. " "	2,390 " "	.55	.54	.69
6-in. slants	94 each	.78	.30	.35
8-in. "		.79	.32	.40
Catchbasins	6 each	25.00	25.00	20.00
Inlets	8 "	10.00	9.00	18.00
Drain tile	5,126 lin. ft.	.12	.06	.05
Lampholes	2 each	14.00	11.00	12.00
Manholes	26 "	27.00	25.00	40.00
Flushtanks	4 "	75.00	65.00	80.00
Brick per 1,000		20.00	15.00	6.00
Concrete, a cu. yd.		9.00	6.00	16.00
Total		$14,414	$13,262	$14,798

PIPE SEWERS.—Greenwich, Conn.—The following bids were received Aug. 20, 1900, for furnishing the materials and for constructing 3,500 ft. of pipe sewers, as advertised in Engineering News; (1) Harrison Con. Co., Newark, N. J.; (2) P. Sweeney, Danbury, Conn.; (3) S. W. Frescoln, Sea Isle City, N. J. (accepted); (4) Frank Brazos, New Haven, Conn.;

		1.	2.	3.	4.
Rock	20 cu. yds.	$4.00	$3.00	$5.00	$3.50
Sewers:					
24-in.*	580 lin. ft.	5.80	2.95	3.60	5.46
24-in.†	470 " "	3.50	1.86	2.05	2.90
20-in.*	270 " "	5.30	2.65	2.72	4.70
20-in.†	750 " "	2.15	1.65	1.66	2.40
18-in.	20 " "	3.00	1.45	1.36	2.08
15-in.	1,050 " "	1.75	1.35	.90	1.50
12-in. c.-i. pipe	1,050 " "	12.00	3.85	3.00	3.75
4-in. " "	400 " "	.50	.75	.44	.85
Piles	220 each	8.00	6.50	7.50	7.50
Timber	30 M. ft.	45.00	33.00	35.00	35.00
Concrete	2 cu. yds.	10.00	7.50	8.00	9.50
12-in. gates	4 each	30.00	50.00	40.00	38.00
4-in. gates	4 "	12.00	14.00	10.00	10.00
Manholes	12 "	25.00	23.00	50.00	55.00
Cut-stone bulkhead		200.00	225.00	135.00	145.00
Total		$26,628	$13,573	$13,080	$17,279

*With backing. †Without backing.

BRICK PAVING.—Middletown, O.—The contract for Medal block brick paving, with cement filler, in Third St., has been let to F. M. Kemp & Sons at $1.45 a yd.; total, $24,590, and 46 cts. a ft. for stratified limestone curbing.

WATER PIPE.—Toledo, O.—The following bids were received Aug. 18, 1900, for furnishing about 500 tons of water pipe, f. o. b. Toledo:

Bidder.	Size of pipe 4-in.	6-in.	8-in.	12-in.
Am. Car & F'dry Co., Detroit	$23.80	$23.80	$23.80	$23.80
M.J.Drummond & Co.,New York	24.60	24.10	23.60	23.60
R. D. Wood & Co., Philadelphia	27.20	26.20	25.20	24.70
National Supply Co., Toledo	23.00	23.00	23.00	23.00
U. S. C.-I. Pipe & Foundry Co.	23.47	23.47	23.47	23.47

GRANOLITHIC SIDEWALKS.—Smith's Falls, Ont.—Frank Dolan, Brockville, Ont., has been awarded the contract at 18½ cts. a sq. ft. for constructing granolithic sidewalks.

ELECTRIC LIGHTING.—South Orange, N. J.—The People's Light & Power Co. has been awarded the contract to supply the township with 200 or more 32-c. p. lamps at $15.50 a year each, and to consumers at 13 cts. an hour.

SEWERAGE SYSTEM.—Lakewood, O.—The following bids were received Aug. 21 for furnishing the materials and for building a sewerage system, the contracts to be let Sept. 1; Sections I. and II., shale and clay; Section III., gravel, water and shale; R. J. Wood, Hamlet Engr., Lakewood Hamlet:

BIDS RECEIVED AT LAKEWOOD, O., ON AUG. 21, 1900, FOR A SEWERAGE SYSTEM.

Section No. 1.

Quantities.		Ford P. Beers.	A. G. Hausman.	Campbell Bros.	W. J. Townsend.	Clements Bros. Constn Co.	C. T. McCracken & Co.
Excavation, 0 to 9 ft.	14,950 cu. yds.	$0.46	$0.45	$0.35	$0.70	$0.87	$0.59
" 9 " 15 "	7,792 " "	.60	.45	.65	1.00	1.00	1.39
" below 15 "	2,576 " "	1.25	.45	1.25	1.45	1.25	2.00
Brick masonry	131 " "	7.00	6.50	7.50	8.00	9.00	8.00
Catchbasins	42 each	22.00	25.00	35.00	40.00	30.00	30.00
Concrete	50 cu. yds.	5.00	6.00	5.00	5.00	4.00	5.00
Laying 8-in. sewer	615 lin. ft.	.04	.13	.04	.06	.06	.03
" 10-in. "	800 " "	.05	.15	.05	.10	.07	.03
" 12-in. "	1,085 " "	.06	.20	.07½	.10	.08	.06
" 22-in. "	1,990 " "	.08	.30	.15	.22	.23	.30
" 24-in. "	6,960 " "	.12	.32	.20	.25	.24	.40
" 5-in. sub-drain	2,025 " "	.06	.10	.18	.20	.12	.15
" 6-in. "	4,390 " "	.07	.10	.19½	.20	.15	.18
" 8-in. "	5,000 " "	.09	.23	.20⅞	.20	.17	.20
" 18-in. storm drain	2,290 " "	.14	.35	.15	.20	.20	.25
" 24-in. " "	250 " "	.16	.40	.25	.20	.24	.35
Total		$19,227	$19,529	$20,708	$30,164	$31,235	$33,604

Section No. 2.

Quantities.		Ford P. Beers.	Campbell Bros.	W. Lehman.	C. T. McCracken & Co.	W. J. Townsend.	A. G. Hausman.	Clements Bros. Const'n Co.	Phillips & Bixel.
Excavation, 0 to 9 ft.	20,467 cu. yds.	$0.46	$0.40	$0.45	$0.43	$0.45	$0.45	$0.85	$0.60
" 9 " 15 "	2,353 " "	.60	.65	.70	.95	.60	.70	1.00	.80
" below 15 "	... " "	1.50	3.00	...	3.00	.85	...	1.50	1.25
Brick masonry	40 " "	7.00	7.50	7.00	8.00	8.00	6.50	9.00	10.00
Catchbasins	61 each	24.00	35.00	26.00	35.00	35.00	25.00	30.00	48.00
Laying 6-in. sewer	3,650 lin. ft.	.04	.04	.05	.02	.04	.10	.05	.18
" 8-in. "	3,933 " "	.05	.045	.06	.025	.06	.13	.06	.19
" 10-in. "	2,200 " "	.05	.05	.07	.03	.08	.15	.07	.21
" 12-in. "	4,575 " "	.06	.07	.10	.06	.10	.20	.08	.24
" 15-in. "	2,515 " "	.06	.12	.12	.10	.15	.25	.10	.28
" 18-in. "	1,390 " "	.06	.14	.15	.15	.20	.29	.13	.30
" 22-in. "	1,490 " "	.17	.15	.16	.30	.20	.30	.16	.35
" 5-in. sub-drain	10,360 " "	.05	.12	.10	.15	.18	.10	.12	.27
" 6-in. "	5,208 " "	.06	.125	.11	.15	.18	.10	.15	.28
" 8-in. "	4,120 " "	.06	.14	.12	.20	.20	.23	.17	.31
" 12-in. storm drain	315 " "	.07	.07	.10	.14	.10	.20	.15	.25
" 15-in. " "	420 " "	.07	.09	.11	.15	.15	.20	.18	.28
" 18-in. " "	3,735 " "	.08	.11	.13	.20	.20	.29	.20	.31
" 20-in. " "	3,080 " "	.16	.13	.15	.30	.20	.30	.22	.34
" 24-in. " "	2,430 " "	.16	.20	.20	.30	.25	.35	.24	.38
Concrete	50 cu. yds.	5.00	5.00	3.50	5.00	5.00	6.00	4.00	9.00
Total		$16,345	$17,702	$18,291	$20,826	$20,987	$22,056	$28,604	$31,405

Section No. 3.

Quantities.		W. Lehman.	Campbell Bros.	Ford P. Beers.	A. G. Hausman.	Pat. O'Donnell.	C. T. McCracken & Co.	Phillips & Bixel.	W. J. Townsend.	Clements Bros. Const'n Co.
Excavation: Up to 9 ft.	26,966 cu. yds.	$0.29	$0.37	$0.46	$0.35	$0.51	$0.42	$0.55	$0.70	$0.80
9 to 15 ft.	2,813 " "	.45	.60	.60	.45	.69	1.00	.65	1.00	.90
15 ft. or more	10 " "	1.00	2.50	1.50	1.00	1.05	2.00	.90	1.50	1.25
Brick masonry	152 " "	7.00	7.50	7.00	6.50	9.90	8.00	10.00	8.00	9.00
Catchbasins	57 each	26.00	35.00	22.00	25.00	26.00	35.00	48.00	40.00	30.00
Laying 6-in. sewer	2,755 lin. ft.	.04	.04	.03	.10	.03	.02	.16	.05	.05
" 8-in. "	6,773 " "	.05	.045	.06	.13	.03⅞	.025	.17	.06	.06
" 10-in. "	4,565 " "	.07	.05	.07	.15	.03¼	.03	.20	.07	.07
" 12-in. "	3,290 " "	.08	.07	.08	.20	.04	.05	.22	.10	.08
" 15-in. "	655 " "	.12	.12	.08	.25	.045	.06	.25	.15	.10
" 5-in. sub-drain	12,883 " "	.12	.12	.06	.10	.085	.14	.24	.18	.12
" 6-in. "	4,125 " "	.13	.135	.07	.10	.085	.15	.25	.18	.15
" 8-in. "	350 " "	.14	.16	.08	.25	.095	.18	.27	.20	.17
" 15-in. storm drain	400 " "	.09	.09	.07	.35	.045	.15	.25	.15	.18
" 18-in. " "	865 " "	.10	.14	.08	.38	.06	.20	.28	.20	.20
" 20-in. " "	900 " "	.12	.15	.16	.40	.075	.30	.30	.20	.22
" 24-in. " "	3,975 " "	.18	.20	.16	.42	.10	.30	.34	.20	.24
Concrete	50 cu. yds.	3.50	5.00	5.00	6.00	5.00	5.00	9.00	5.00	4.00
Total		$16,004	$19,273	$19,766	$20,376	$21,559	$22,379	$30,949	$31,081	$32,209

Disposal Plant.

Quantities.	Clements Bros. Const'n Co.	A. G. Hausman.	C. T. McCracken & Co.	Ohio Const'n Co.
Excavation .5,000 cu. yds.	$0.50	$0.25	$0.73	$1.00
Concrete .... 600 " "	5.00	4.50	4.50	5.00
Brick mas'ry. 75 " "	9.00	4.50	7.00	9.50
Portld cemt . 900 bbls.	2.25	2.20	2.00	2.15
Exp. metal..7,800 sq. ft.	.05	.04	.06	.05
Struct. steel. 200 lbs.	.10	.02	.50	.03
Embankment steps	30.00	20.25	75.00	50.00
Bed materials7,500 cu. yds.	1.00	1.00	.90	1.25
Gravel ..... 250 " "	2.25	2.00	1.50	2.00
Reservoir pipes	1,780	131.00	110.00	357.00
Distribution system	2,800	7,800	7,500	8,168
Underdrains	200.00	372.00	650.00	778.00
Seeding ..... 0.6 acre	100.00	45.00	200.00	50.00
Sodding .....1,000 sq. yds.	.20	.25	.15	.12
Walks .....1,000 lin. ft.	.25	.12	.15	.30
Total	$21,993	$23,304	$25,663	$30,722

Tunnel and Short Siphon.

Quantities.	Ohio Const'n Co.	F. P. Beers.	Phillips & Bixel.	Campbell Bros.
On siphon:				
Excav. ....1,200 cu. yds.	$0.50	$0.45	$0.50	$0.80
Concrete .. 250 " "	6.00	5.00	16.00	4.50
Brk masry. 30 " "	10.00	7.00	18.00	7.00
Tunnel:				
4 ft. 9 ins..1,100 lin ft.	9.00	15.00	18.00	27.00
5 " 9 " .1,450 " "	9.50	17.25	21.00	31.00
Shaft:				
Excav. .... 350 cu. yds.	2.50	1.25	5.00	3.00
Concrete .. 100 " "	6.00	5.00	15.00	5.50
Brk masry. 60 " "	10.00	17.50	18.00	24.00
C.-i. pipe:				
10-in. .....1,165 lin. ft.	2.50	2.00	1.50	2.25
30-in. ..... 100 " "	2.00	2.50	3.00	12.00
Port. cemt...3,000 bbls.	2.15	2.25	2.50	2.15
Total	$37,858	$54,830	$70,468	$90,256
Long Siphon.				
Excav. .....4,000 cu yds.	$0.75	$1.75	$1.00	$0.80
10" c.-i. pipe.4,875 lin. ft.	2.50	2.65	1.32	2.25
Concrete .... 85 cu. yds.	6.00	7.00	5.50	5.50
Brick masry. 8 " "	10.00	8.00	7.50	15.00
Port. cemt . 110 bbls.	2.15	2.30	2.50	2.15
Total	$16,014	$20,831	$11,238	$14,993

Vitrified Pipe.—Michigan S. P. Co., 80% off list; Cleveland Builders' Supply Co., 78% and 1% discount; Kelly Island Lime & Transport Co., 78%; Central Builders' Supply Co., 77½%; American Clay Mfg. Co., 77½%; Buckeye S. P. Co., 77%; Robinson Bros. & Co., 76%.

SEWERAGE SYSTEM.—Waterford, N. Y.—The following contract for a sewerage system has been let to Wm. Stanton, Cohoes, N.Y.: 12 ft. 24-in. cast-iron,$2.60; 480 ft. 24-in. tile, $1.42; 160 ft. 24-in. cast-iron, lump sum, $850; 1,035 ft. 18-in. tile, 91 cts.; 1,136 ft. 15-in. tile, 72 cts.; 36 ft. 15-in. cast iron, $2.60; 2,287 ft. 12-in. tile, 55 cts.; 2,750 ft. 10-in. tile, 49 cts.; 1,095 ft. 8-in. tile, 43 cts.; 22 manholes, each, $33; 9 lampholes, each, $4; total, $7,254.

BRICK PAVING.—Council Bluffs, Ia.—The following bids were received by the council Aug. 6, 1900, for brick paving: E. A. Wickham, Council Bluffs, for Galesburg brick top course and Council Bluffs brick lower course, $1.69½; Des Moines brick top and Council Bluffs bottom, $1.62; Council Bluffs brick, both courses, $1.33 9-10; Galesburg brick, single course on concrete base, $1.79½; Des Moines brick, single course on concrete base, $1.66½; cement and asphaltum filler, 9 cts. These prices are for cash, 6% to be added for certificates. Geo. F. Hughes, Council Bluffs, Galesburg brick top course and Council Bluffs brick lower course, $1.70; Galesburg top and concrete base, $1.83¾; Galesburg brick, single course on sand base, $1.43; Des Moines brick top and Council Bluffs bottom, $1.62½; Des Moines, single course on concrete base, $1.67; Des Moines, single course on sand base, $1.33; Council Bluffs brick, both courses, $1.35; Council Bluffs brick, single course on concrete base, $1.56; cement and asphaltum filler, 9 cts. These are cash prices, 6% to be added for certificates. W. P. Mummaugh, Omaha, Neb., Des Moines brick top course, with Council Bluffs brick lower course, $1.67; Galesburg brick top course and Council Bluffs lower course, $1.71; Council Bluffs brick top and lower course, $1.41; Des Moines brick on concrete base, $1.89; Galesburg brick on concrete base, $1.93; cement filler, 8½ cts. These bids are for cash, 7% to be added for certificates. A. E. Rutledge, Rockford, Ill., Galesburg brick top course, and Council Bluffs lower course, $1.73½; Galesburg brick, single course on concrete base, $1.93½; cement filler, 10 cts. These are cash prices, 6% to be added for certificates. The curbing bids were as follows: Wickham, artificial stone, 29 cts. per lin. ft.; natural stone, 60 cts. Hughes artificial stone, 31½ cts. Mummaugh, artificial stone, 45 cts.; natural stone, 75 cts. Rutledge, artificial stone, 45 cts.; natural stone, 60 cts. Nelson & Olsen, Council Bluffs, 27½ cts. for artificial stone; for certificates, and 26 cts. for cash. Steve Connor, Council Bluffs, artificial stone, 32 cts., less 5% for cash.

WATER PIPE.—Ogdensburg, N. Y.—The board of water commissioners have entered into a contract with the state commission of lunacy, to furnish the water supply for the St. Lawrence State Hospital. To do this the city proposes to lay about 14,000 ft. of 14-in. pipe, about 750 tons. The bids for the pipe were opened Aug. 24, 1900, as follows: U. S. Cast-Iron Pipe & Foundry Co., $23.90 a net ton, f. o. b. cars Ogdensburg; Warren Foundry & Machine Co., $23.65; M. J. Drummond & Co., $24.25; R. D. Wood & Co., $24.40; Chas. Millar & Son Co., Utica, N. Y., $22.[illegible] (accepted). The work of laying the pipe will be commenced at once under the supervision of the water department. H. A. Lord, Supt.; Maj. W. H. Daniels, Pres.

DREDGING.—Pittsburg, Pa.—Maj. Chas. F. Powell, U. S. Engr., received bids Aug. 22, 1900, for dredging in Pittsburg harbor and certain sections of the local rivers. The specifications call for (1) the dredging of the Monongahela River from Lock No. 1 to Market St., 47,900 cu. yds. of sand, gravel, clay, rock, refuse, wreckage, stones or anything else that may be in the river; (2) mouth of Allegheny River, 14,500 cu. yds.; (3) Ohio River from Locust St. to Juniata St., 6,800 cu. yds.; (4) Ohio River, foot of Brunot's Island, 12,000 cu. yds. As the dredging may be disposed of in different ways, there are two classes made in the specifications. At Brunot's Island, in one spot designated, 40,000 cu.yds. may be dumped; 7,000 yds. may be dumped below Lock No. 1; much may be placed behind bulkheads abutting the harbor lines, with the consent of property owners; there are bulkheads now being built, and some that may shortly be built. All dredgings so disposed of will be known as Class A. Other dredgings must be taken outside of the U. S. harbor lines, and such dredgings are classified as Class B. Work of removing wreckage, snags or boulders will be paid for at the rate of $10 an hour extra, providing the equipment is such as to satisfy the inspector. The fact is noted that the sand and gravel are salable for building purposes. Following are the bids: The Iron City Sand Co., Pittsburg, 15 cts. for Class A and 25 cts. for Class B in items 2 and 3; and 16 cts. Class A, and 28 cts. in Class B, in item 4. The Independent Sand Co., Pittsburg, (2) Class A 17 cts., Class B 26 cts.; (3) Class A 16 cts., Class B 26 cts.; (4) Class A 15 cts., Class B 27 cts. W. C. Jutte, Pittsburg, (1, 2, 3 and 4) Class A 22 cts., Class B 60 cts. Hingston, Pihl & Cooper, Buffalo, N. Y., (1, 2, 3 and 4) Class A 35 cts., Class B 48 cts. Other bidders yet to be heard from, firms to whom copies of the specifications had been sent, are the Evansville Construction Co., Monongahela Construction Co., Drake & Stratton, Sharpsburg Sand Co., J. K. Davidson & Bro., Sloane, McIlvaine & Graham. The contract will not be let until these firms are given a further opportunity to be heard from.

INDUSTRIAL NOTES.

THE PEARSON JACK CO., Boston, announces that it has acquired a license from the U. S. Car-Moving Device Co., Lowell, Mass., for the sole manufacture and sale of the U. S. car pusher.

THE OPALITE TILE WORKS, Monaca, Pa., has completed its new plant and will soon put it in operation. Many claims are made for opalite tile as being better as well as cheaper than clay tiles. Pres., H. C. Frye.

THE ALCATRAZ CO., New York, and also the Alcatraz Paving Co., have removed their offices to the 12th floor, 11 Broadway.

THE INTERNATIONAL POWER CO., Providence, R. I., has a contract for 20 passenger locomotives for the California division of the Atchison, Topeka & Santa Fe.

THE AMERICAN CAR & FOUNDRY CO., St. Louis, has the following recent orders for cars: 10 box cars for the Arkansas Midland R. R.; 100 coal cars for the Webster Coal & Coke Co., of Scranton, Pa.; 100 gondola cars for the Kansas City, Fort Scott & Memphis R. R.; 200 gondola cars for the Louisville & Nashville R. R.

THE VINCENT VALVE CO., Owosso, Mich., announces that its plant will be removed about Nov. 1 to Sandusky, O., where it is now erecting a factory for the exclusive manufacture of Vincent adjustable wedge gate valves.

THE NEW ENGLAND STRUCTURAL CO., Boston, is rapidly completing the steel framework for the Union Trust Co.'s 11-story building at Providence, R. I. The material for this work was taken largely from the stock on hand.

BETHLEHEM STEEL CO., South Bethlehem, Pa., announces that it has discontinued its St. Louis office and that the territory heretofore covered by it will be handled from the Chicago office.

THE INLAND STEEL CO., Marquette Bldg., Chicago, has acquired the business of the Indestructible Post Co., of Brazil, Ind., and will manufacture and introduce the steel posts with burnt clay foundations, which were described and illustrated in our issue of Oct. 19, 1899. These posts are for fences, railway signs, signals, etc. Mr. H. E. Speyer, who was formerly with the original company, is now manager of the indestructible post department of the Inland Steel Co.

THE DETROIT STEEL & SPRING CO., Detroit, Mich., informs us that the fire at its works on Aug. 19 was confined to the foundry department, in which are made steel castings for railway and other work. It is expected to have this department in operation very shortly. The loss was fully covered by insurance, and will be replaced as quickly as possible. The rolling mills, spring shops, etc., were not affected, being in separate buildings.

THE PRESSED STEEL CAR CO. has received an order from the Pittsburg, Bessemer & Lake Erie R. R. Co. for 800 steel cars of 110,000 lbs. capacity. Half the order are to be gondola cars and the others will be of the hopper-bottom type. It will be noted that this is an increase in capacity of 10,000 lbs. over the largest standard cars previously used. The company's exhibit of its cars at Paris is complimented by an article in the "Figaro" of July 27, in which great credit is awarded to the founder of the company, Mr. Chas. P. Schoen, for his energy and enterprise in building up from very small beginnings in the space of a few years a business which now gives employment to 10,000 men. According to this article the total number of pressed steel cars in service and under contract is 26,412.

NEW COMPANIES.—Rockwell Gas Co., Rockwell, Ia.; $10,000; G. H. Felhaus, G. E. Higley, F. R. Putnam, C. M. Bowe.

New York & Philadelphia Oil & Gas Co., Hackensack, N. J.; $12,000; H. E. Hayes, Hackensack; D. H. Moore, New York.

General Acetylene Lighting Co., Springfield, Mass.; $300,000; H. G. Hawkins, T. C. Buddington, L. Reed, N. C. Woodruff.

Chittenden Power Co., Rutland, Mass.; $50,000; H. L. Hoag, H. O. Carpenter.

Mt. Lassen Power Co., San Francisco, Cal.; $1,000,000; A. Hochheimer, Willows; C. L. Merrill, F. Smith, A. F. Johns.

Fort Miller Power Co., San Francisco, Cal.; $10,000,000; S. F. F. G. Berry, Fresno; W. Saunders, T. O. Carter.

Contract Work Should Always be Advertised in a Paper Read by Contractors.

NEARLY EVERY PROMINENT CONTRACTOR and Manufacturer of W. NORTH

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Catchbasins ..... 42 each...	22.00	25.00	35.00	40.00	30.00	30.00
Concrete ..... 50 cu. yds.	5.00	6.00	5.00	5.00	4.00	5.00
Laying 8-in. sewer ..... 615 lin. ft..	.04	.13	.04	.06	.06	.03
" 10-in. " ..... 800 " "	.05	.15	.05	.10	.07	.03
" 12-in. " ..... 1,085 " "	.06	.20	.07½	.10	.08	.06
" 22-in. " ..... 1,990 " "	.08	.30	.15	.22	.23	.30
" 24-in. " ..... 6,960 " "	.12	.32	.20	.25	.24	.40
" 5-in. sub-drain ..... 2,025 " "	.06	.10	.18	.20	.12	.15
" 6-in. " ..... 4,380 " "	.07	.10	.19½	.20	.15	.18
" 8-in. " ..... 5,000 " "	.09	.23	.20½	.20	.17	.20
" 18-in. storm drain ..... 2,290 " "	.14	.35	.15	.20	.20	.25
" 24-in. " " ..... 250 " "	.16	.40	.25	.20	.24	.35
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Concrete .... 600 " "	5.00	4.50	4.50	5.00
Brick mas'ry. 75 " "	9.00	4.50	7.00	9.50
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Exp. metal..7,800 sq. ft...	.05	.04	.06	.05
Struct. steel. 200 lbs.....	.10	.02	.50	.03
Embankment steps	30.00	20.25	75.00	50.00
Bed materials7,500 cu. yds.	1.00	1.00	.90	1.25
Gravel ..... 250 " "	2.25	2.00	1.50	2.00
Reservoir pipes	1,780	131.00	110.00	357.00
Distribution system	2,800	7,800	7,500	8,168
Underdrains	200.00	372.00	650.00	778.00
Seeding ..... 0.6 acre....	100.00	45.00	200.00	50.00
Sodding .....1,000 sq. yds.	.20	.25	.15	.12
Walks .....1,000 lin. ft..	.25	.12	.15	.30
Total	$21,993	$23,304	$25,663	$30,722

Vitrified Pipe.—Michigan S. P. Co., 80% off list; Cleveland Builders' Supply Co., 78% and 1% discount; Kelly Island Lime & Transport Co., 78%; Central Builders' Supply Co., 77½%; American Clay Mfg. Co., 77½%; Buckeye S. P. Co., 77%; Robinson Bros. & Co., 76%.

Quantities.	Ohio Const'n Co.	F. P. Beers.	Phillips & Bixel.	Campbell Bros.
On siphon:				
Excav. ....1,200 cu. yds.	$0.50	$0.45	$0.50	$0.80
Concrete .. 250 " "	6.00	5.00	16.00	4.50
Brk masry. 30 " "	10.00	7.00	18.00	7.00
Tunnel:				
4 ft. 9 ins..1,100 lin ft..	9.00	15.00	18.00	27.00
5 " 9 " .1,450 " "	9.50	17.25	21.00	31.00
Shaft:				
Excav. .... 350 cu. yds.	2.50	1.25	5.00	3.00
Concrete .. 100 " "	6.00	5.00	15.00	5.50
Brk masry. 60 " "	10.00	17.50	18.00	24.00
C.-i. pipe:				
10-in. .....1,165 lin. ft..	2.50	2.00	1.50	2.25
30-in. ..... 100 " "	2.00	2.50	3.00	12.00
Port. cemt...3,000 bbls....	2.15	2.25	2.50	2.15
Total	$37,858	$54,830	$70,468	$90,256
Long Siphon.				
Excav. .....4,000 cu yds.	$0.75	$1.75	$1.00	$0.80
10" c.-i. pipe.4,875 lin. ft..	2.50	2.65	1.32	2.25
Concrete .... 85 cu. yds.	6.00	7.00	5.50	5.50
Brick masry. 8 " "	10.00	8.00	7.50	15.00
Port. cemt . 110 bbls....	2.15	2.30	2.50	2.15
Total	$16,014	$20,831	$11,238	$14,993

SEWERAGE SYSTEM.—Waterford, N. Y.—The following contract for a sewerage system has been let to Wm. Stanton, Cohoes, N.Y.: 12 ft. 24-in. cast-iron,$2.60; 480 ft. 24-in. tile, $1.42; 160 ft. 24-in. cast-iron, lump sum, $850; 1,035 ft. 18-in. tile, 91 cts.; 1,136 ft. 15-in. tile, 72 cts.; 36 ft. 15-in. cast iron, $2.60; 2,287 ft. 12-in. tile, 55 cts.; 2,750 ft. 10-in. tile, 49 cts.; 1,095 ft. 8-in. tile, 43 cts.; 22 manholes, each, $33; 9 lampholes, each, $4; total, $7,254.

BRICK PAVING.—Council Bluffs, Ia.—The following bids were received by the council Aug. 6, 1900, for brick paving: E. A. Wickham, Council Bluffs, for Galesburg brick top course and Council Bluffs brick lower course, $1.69½; Des Moines brick top and Council Bluffs bottom, $1.62; Council Bluffs brick, both courses, $1.33 9-10; Galesburg brick, single course on concrete base, $1.79½; Des Moines brick, single course on concrete base, $1.66½; cement and asphaltum filler, 9 cts. These prices are for cash, 6% to be added for certificates. Geo. F. Hughes, Council Bluffs, Galesburg brick top course and Council Bluffs brick lower course, $1.70; Galesburg top and concrete base, $1.83⅞; Galesburg brick, single course on sand base, $1.43; Des Moines brick top and Council Bluffs bottom, $1.62½; Des Moines, single course on concrete base, $1.67; Des Moines, single course on sand base, $1.33; Council Bluffs brick, both courses, $1.35; Council Bluffs brick, single course on concrete base, $1.56; cement and asphaltum filler, 9 cts. These are cash prices, 6% to be added for certificates. W. P. Mummaugh, Omaha, Neb., Des Moines brick top course, with Council Bluffs brick lower course, $1.67; Galesburg brick top course and Council Bluffs lower course, $1.71; Council Bluffs brick top and lower course, $1.41; Des Moines brick on concrete base, $1.89; Galesburg brick on concrete base, $1.93; cement filler, 8½ cts. These bids are for cash, 7% to be added for certificates. A. E. Rutledge, Rockford, Ill., Galesburg brick top course, and Council Bluffs lower course, $1.73½; Galesburg brick, single course on concrete base, $1.93½; cement filler, 10 cts. These are cash prices, 6% to be added for certificates. The curbing bids were as follows: Wickham, artificial stone, 29 cts. per lin. ft.; natural stone, 60 cts. Hughes artificial stone, 31½ cts. Mummaugh, artificial stone, 45 cts.; natural stone, 75 cts. Rutledge, artificial stone, 45 cts.; natural stone, 60 cts. Nelson & Olsen, Council Bluffs, 27½ cts. for artificial stone; for certificates, and 26 cts. for cash. Steve Connor, Council Bluffs, artificial stone, 32 cts., less 5% for cash.

WATER PIPE.—Ogdensburg, N. Y.—The board of water commissioners have entered into a contract with the state commission of lunacy, to furnish the water supply for the St. Lawrence State Hospital. To do this the city proposes to lay about 14,000 ft. of 14-in. pipe, about 750 tons. The bids for the pipe were opened Aug. 24, 1900, as follows: U. S. Cast-Iron Pipe & Foundry Co., $23.90 a net ton, f. o. b. cars Ogdensburg; Warren Foundry & Machine Co., $23.65; M. J. Drummond & Co., $24.25; R. D. Wood & Co., $24.40; Chas. Millar & Son Co., Utica, N. Y., $22.[illegible] (accepted). The work of laying the pipe will be commenced at once under the supervision of the water department. H. A. Lord, Supt.; Maj. W. H. Daniels, Pres.

DREDGING.—Pittsburg, Pa.—Maj. Chas. F. Powell, U. S. Engr., received bids Aug. 22, 1900, for dredging in Pittsburg harbor and certain sections of the local rivers. The specifications call for (1) the dredging of the Monongahela River from Lock No. 1 to Market St., 47,900 cu. yds. of sand, gravel, clay, rock, refuse, wreckage, stones or anything else that may be in the river; (2) mouth of Allegheny River, 14,500 cu. yds.; (3) Ohio River from Locust St. to Juniata St., 6,800 cu. yds.; (4) Ohio River, foot of Brunot's Island, 12,000 cu. yds. As the dredging may be disposed of in different ways, there are two classes made in the specifications. At Brunot's Island, in one spot designated, 40,000 cu.yds. may be dumped; 7,000 yds. may be dumped below Lock No. 1; much may be placed behind bulkheads abutting the harbor lines, with the consent of property owners; there are bulkheads now being built, and some that may shortly be built. All dredgings so disposed of will be known as Class A. Other dredgings must be taken outside of the U. S. harbor lines, and such dredgings are classified as Class B. Work of removing wreckage, snags or boulders will be paid for at the rate of $10 an hour extra, providing the equipment is such as to satisfy the inspector. The fact is noted that the sand and gravel are salable for building purposes. Following are the bids: The Iron City Sand Co., Pittsburg, 15 cts.

THE INLAND STEEL CO., Marquette Bldg., Chicago, has acquired the business of the Indestructible Post Co., of Brazil, Ind., and will manufacture and introduce the steel posts with burnt clay foundations, which were described and illustrated in our issue of Oct. 19, 1899. These posts are for fences, railway signs, signals, etc. Mr. H. S. Speyer, who was formerly with the original company, is now manager of the indestructible post department of the Inland Steel Co.

THE DETROIT STEEL & SPRING CO., Detroit, Mich., informs us that the fire at its works on Aug. 19 was confined to the foundry department, in which are made steel castings for railway and other work. It is expected to have this department in operation very shortly. The loss was fully covered by insurance, and will be replaced as quickly as possible. The rolling mills, spring shops, etc., were not affected, being in separate buildings.

THE PRESSED STEEL CAR CO. has received an order from the Pittsburg, Bessemer & Lake Erie R. R. Co. for 800 steel cars of 110,000 lbs. capacity. Half the order are to be gondola cars and the others will be of the hopper-bottom type. It will be noted that this is an increase in capacity of 10,000 lbs. over the largest standard cars previously used. The company's exhibit of its cars at Paris is complimented by an article in the "Figaro" of July 27, in which great credit is awarded to the founder of the company, Mr. Chas. P. Schoen, for his energy and enterprise in building up from very small beginnings in the space of a few years a business which now gives employment to 10,000 men. According to this article the total number of pressed steel cars in service and under contract is 26,412.

NEW COMPANIES.—Rockwell Gas Co., Rockwell, Ia.; $10,000; G. H. Felhaus, G. E. Higley, F. R. Putnam, C. M. Bowe.

New York & Philadelphia Oil & Gas Co., Hackensack, N. J.; $12,000; H. E. Hayes, Hackensack; D. H. Moore, New York.

General Acetylene Lighting Co., Springfield, Mass.; $300,000; H. G. Hawkins, T. C. Buddington, L. Reed, N. C. Woodruff.

Chittenden Power Co., Rutland, Mass.; $50,000; H. L. Hoag, H. O. Carpenter.

Mt. Lassen Power Co., San Francisco, Cal.; $1,000,000; A. Hochheimer, Willows; C. L. Morrill, F. Smith, A. F. Johns.

Fort Miller Power Co., San Francisco, Cal.; $10,000,000; S. F. F. G. Berry, Fresno; W. Saunders, T. O. Carter.

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